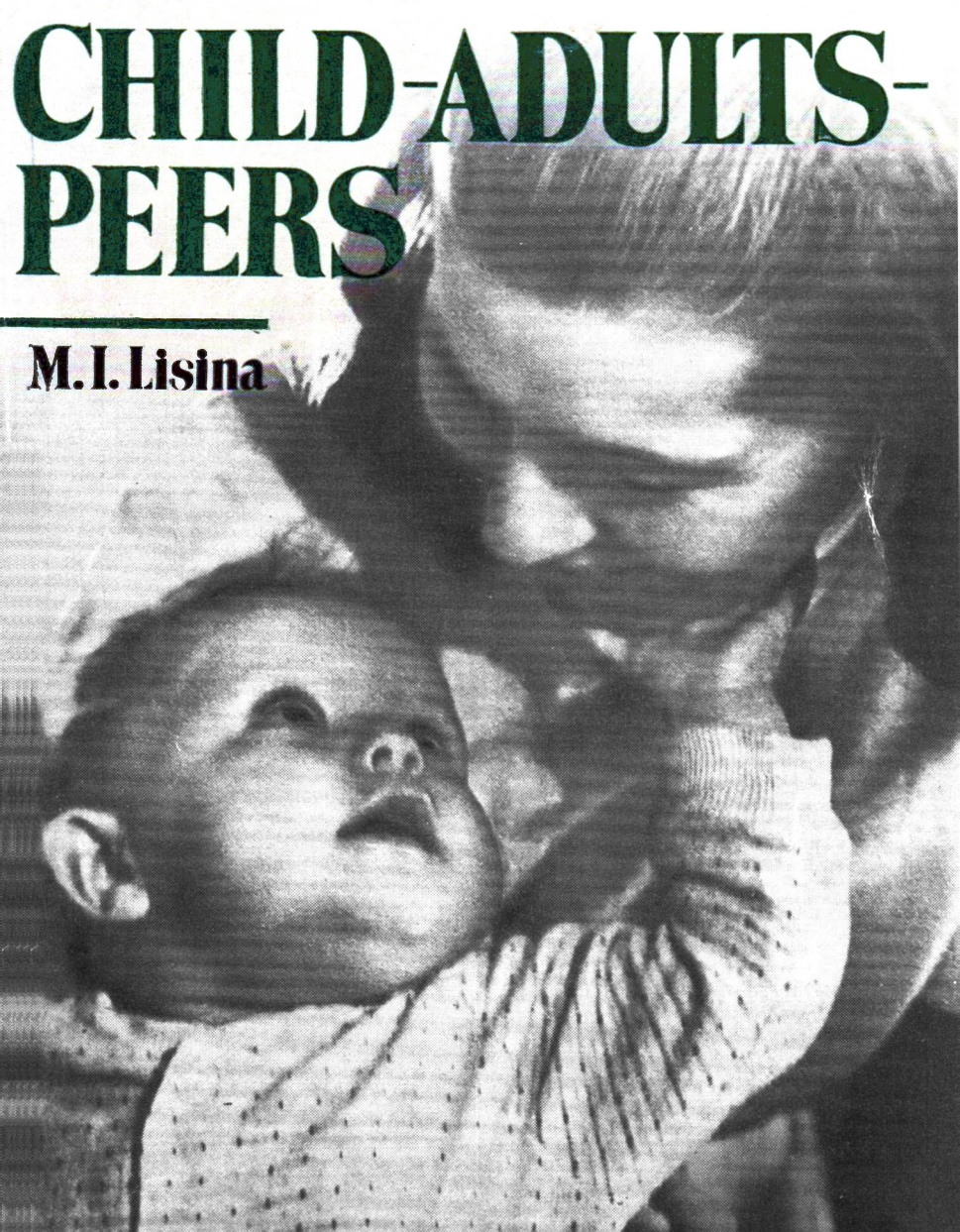
CHILD–ADULTS–PEERS

M. I. Lisina



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CHILD–ADULTS–PEERS
Patterns of Communication

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INTRODUCTION

A child has come into the world. There is now a new living creature in our midst endowed with all that is necessary to become a human being in the full sense of the word: a brain with millions of nerve cells, muscles capable of executing the subtlest or the most powerful of movements, speech organs enabling him to produce the most diverse sounds and much, much else besides. Yet turning into a Person is a task that is only just beginning. It is something a child can only achieve if the people around him help him to do so: if they accept him into their society, share their knowledge and experience with him and teach him to see, listen, feel and think in a human way. All his higher mental and emotional functions are not something a person is born with: it is during the course of his life and only with the help of older people that a child gradually acquires the skills of selective attention, conscious memory and logical thinking. The Soviet psychologist Lev Vygotsky stressed that higher mental and emotional functions, before they become an intrinsic part of personality, manifest themselves as interaction between the child and the people around him. They take shape outside the child initially and are only later internalised.

If for some reason the links between the child and the people around him are disrupted, his development is held back and sometimes even brought to a standstill. This is the case, for example, with deaf-blind children for whom two of the most

important channels of communication with the outside world are blocked off, namely sight and hearing. Research carried out by the Soviet specialists in the education of the deaf-blind, Ivan Sokolyansky and Alexander Meshcheryakov, has demonstrated this beyond all possible doubt; yet at the same time they have shown that a teacher armed with love and patience for these children, coupled of course with specialised knowledge, can penetrate the dark turmoil of the confused minds and feelings of the deaf-blind child. Using these children's sense of touch—their tactile awareness, sensitivity to vibration—and any meagre vestiges of sight or hearing they might still possess, specialists in this field nurture and develop their charges' capacity for thought and feeling, and their scientific and artistic aspirations. Olga Skorokhodova, the deaf-blind pupil of Sokolyansky, has defended her dissertation to become a Candidate of Science, has carried out many years of fruitful research work and has written three books. Four of Meshcheryakov's deaf-blind pupils graduated from the psychology faculty of Moscow University and are now engaged in research. Without special tuition, these children deprived as they are of sight and hearing remain at a very low stage of development: they are unable to find their bearings in time or space, they cannot attend to their own basic physical needs and are invalids in the full sense of the word.

Sometimes a child can grow up in conditions where his contacts with adults are minimal. This sometimes occurs in children's homes which have inadequately trained staff or a shortage of the latter. When there is only one adult per twenty or thirty children, there is hardly time to keep them all properly fed and washed, let alone to talk meaningfully to them or offer them affection. In such conditions children's development is severely held back, they become what is called institutionalised. Such children are passive, sad, self-absorbed and show little interest

in toys or other people. Many of them develop stereotyped, obsessive movements: for long periods at a stretch they rock to and fro, suck their thumbs or the corner of a blanket. Children deprived of human contact at a very early age can often be seen just lying passively: even after a year or more they will not have learnt how to hold up their head, turn over and take hold of objects. Any infection, even a common cold, can prove fatal for such unresponsive children so ill fitted for life.

In order to cure an institutionalised child, it is not expensive medication that is required. The establishment of regular contacts with adults is all that is needed—a lap to sit on, affection and meaningful talking—and within a short time a child will, as it were, wake from his slumber. He will become alert to and interested in the world around him, and will open up to that world as he goes out to meet it.

The human being's childhood is a long one. No other species of living creature remains, for many months, totally dependent on its elders. This long period of helplessness accounts for the child's eventual plasticity and flexibility and his ability to adapt to all kind of rapid changes in his circumstances. All the above qualities are extremely valuable for the human being since the world fashioned by man is changing at breakneck speed.

The Soviet psychologists Lev Vygotsky, Alexei Leontiev and Sergei Rubinstein demonstrated that the development of a child's mind and emotions is mainly the result of his social heritage assimilated via social experience. For animals, up to and including anthropoids, two forms of experience are of decisive importance for their development: "clan" experience (inborn and inherited) and individual experience (acquired in the course of the animal's life and adaptation to environment). Yet, for the human being, it is a third form of experience which is all-important and which is totally lacking in the animal world: the socio-historical experience of previous generations embodied

in his material and cultural environment. During the whole of his childhood the human being is absorbing the heritage of his fathers. In the course of this learning process, the true development of his mind and emotions takes place. A child not only acquires specific skills and assimilates certain items of knowledge, but, at the same time, major changes are occurring in his mental and emotional development, in other words, as pointed out by Vygotsky, this learning process inevitably brings development in its wake.

The question may well be asked: does not the influence of adults impede the development of a child's independence, or rob him perhaps of initiative or creative inspiration? Is not this influence perhaps superfluous? No! The psychologists answer in one voice: help from adults is absolutely essential for children. This stems from the fact that the experience of previous generations embodied in man's material and cultural environment is, as it were, hidden from the eyes of the uninitiated. If a child chances across an object whose function is unknown to him—such as a camera or a coffee-grinder—he is unable to guess for what purpose and how it might be used. A majestic organ will appear to him as no more than a strange wall of pipes and it will not occur to the uninitiated child that inspiring sounds might be drawn from it. The richest of libraries remains useless to a man who cannot read. The hidden secrets of things can only be revealed to a child by his elders, by those who have already mastered them.

Words alone or mere demonstrations are of course inadequate: in order properly to understand and master any object in his environment a child needs actively to interact and work with it, to use it as intended. This means that we should not interpret the idea of tuition or the learning process as something that merely involves a child's obedient assimilation of information imparted by adults. A good teacher never confines himself

to a straightforward exposition: he tries to stimulate ideas, arouse emotions and encourage activity on the child's part so that he himself should try to solve the problems confronting him. A wise adult holds back in reserve his help and support until the decisive moment, initially leaving the child as much scope for initiative as possible. In the final analysis a child assimilates only that which he has come to appreciate through personal experience and his powers of understanding are determined by the activities he has himself successfully carried out. Mental and emotional development occurs within a framework of actions and depends upon the conditions in which such activity is carried out and the nature of the activity itself.

The emotional and mental development of a child is thus taking place in the course of his interaction with the people around him. A mere fifty years ago scientists' definitions of that interaction were extremely vague and inconsistent. In recent decades keen interest has been shown in contacts taking place between individuals and there are many factors which serve to account for this. In the present age the development of means of communication and travel have narrowed the distance between the various corners of our planet. Yet, we are confronted by a paradox: the rapid and ever accelerating pace of life is, at the same time, alienating people from each other. Ties are far less close between people who live side by side, in one house, or even within one family. The traditional patterns of family life are changing and we only get together with our relatives on rare occasions, let alone find evenings for meeting friends. At a time when familiar patterns of life—with their leisurely pace, stable ties and firm adherence to traditions—are giving way to new patterns characterised by a high degree of mobility and a rapid pace, people are going out of their way to understand what communication really means.

Pride of place among the diverse disciplines which can help

provide an answer to the questions raised by this concept and its definition must be accorded to psychology. The psychologist is, by the very nature of his profession, called upon to investigate people's minds and emotions, to identify their innermost needs and wants. Several decades ago research was being carried out practically at one and the same time in various parts of the world aimed at in-depth study of the psychology of human communication. From the very beginning a central place in this research was accorded to the study of children's communication, in particular communication between small children and the adults looking after them.

Practical considerations also played a major part in promoting communication research. The participation of women in large-scale production made the provision of public institutions for the care of pre-school children a priority issue. There was an acute need for defining how should contact best be made between adults and small children in conditions different from the patterns of family life which had taken shape over the centuries. Society demanded of its psychologists that they elaborate aspects of the *birth of communication.*

In the early sixties questions of communication began to be investigated on a wide scale in the Soviet Union. In this work Soviet psychologists started out from the well-established principles used for the study of relationships between small children and adults in child-care institutions.

The aim of this book is to expound the principal findings arrived at in the course of over twenty-year-long research carried out by the staff of the department for research into the mental and emotional development and upbringing of pre-school children at the Institute of General and Educational Psychology of the USSR Academy of Pedagogical Sciences.

The various chapters of this book will treat the nature of communication, how it comes into being and evolves at differ-

ent stages of pre-school development, in the hope that these findings will be helpful to all those involved in childcare in their efforts to achieve a better understanding of what a child expects from the people around him and how adults should satisfy his need for communication. Satisfying that need means making a child happier, teaching him to form ties with other people and also to understand himself.

Chapter I

COMMUNICATION AS A PSYCHOLOGICAL PHENOMENON

In everyday speech the word communication is used to mean a great many things: one person might be heard to complain: "I've got no-one to communicate with," meaning he has no-one with whom to carry on frank and uninhibited conversation, while another might suggest to his young friends: "Do pop in this evening: we must have a nice long chat and really communicate properly again." The friends, while nodding in agreement, would be looking forward to listening to music together, to exchanging views on current events and to finding out how other members of the group were faring. In short, the term "communication" is something which everyone appears to understand, yet each individual lends it a meaning all of his own.

As a scientific concept, however, it requires a more precise definition, otherwise it will be difficult for researchers to talk the same language when discussing the phenomena which come under this heading.

The Definition of Communication

A close study of psychological literature reveals that there is a great deal of inconsistency in the definition used by the various specialists concerned. More often than not they associate the term with conversation between two or more individuals: "They're

talking so they must be communicating." Yet, is the concept "communication" still applicable, if only one person in a group is talking while the others are listening to him in silence? Moreover, how should the situation be defined, in which a lecturer is addressing an audience which he does not even see before him, as for example on the radio or the television?

Many psychologists maintain that in such situations communication is also taking place. There are indeed specialists who consider that the individual is communicating with a computer when he feeds a problem into it and then obtains the solution. Philosophers are inclined to think that man communicates with Nature and that he can argue and converse with himself. Yet these interpretations are not accepted universally: opponents of such views would argue that conversations with inanimate objects are of purely metaphorical significance, the same as talking to oneself.

Instead, I would put forward the following definition of communication: *interaction of two or more people, consisting in an exchange of messages so as to co-ordinate and unite their efforts to establish a relationship and achieve a common goal.* The meaning behind this definition will now be examined in more detail.

In the first place communication involves *interaction*. This means that the two or more parties involved are active. More often than not the levels of action vary from one party to another: one of those involved in the communication may take the initiative and address others, who in their turn listen and look at him while taking in what he is saying to them. As a rule partners change roles after a short period: those who were listening begin to express their opinions of the statements made by the first "speaker", who in his turn pays heed to their responses. In the course of the communication such role-swapping takes place many times and as a result the process as a whole is of a bilat-

eral rather than unilateral nature: the actions of those participating in the communication are mutual or two-way.

Furthermore the partners in the communication arrange for it to take place precisely because they want to be listened to and because they are counting on receiving a response. They are moved not merely by a desire to act, but precisely to *interact*. From this the second detail in the above definition follows on naturally, namely that communication takes place between *two or more people*. Any "dialogue" carried out by someone talking to himself, with a computer or with Nature would therefore be excluded from the concept of "communication". One-sided addresses directed at an audience by an individual when no response is possible (for instance when a writer addresses posterity) or difficult to achieve (for instance, when a lecturer addresses a radio audience) should also be excluded.

The next element of the definition brings out another specific feature of communication: it consists in the *exchange of messages* between those participating in the interaction. The transmission and reception of messages constitute the main content of communication. This is why the terms "communication" and "communicative activity" are seen as synonymous. Messages can be transmitted in various forms. Nor should the concept "communication" be restricted to conversation, or indeed to speech acts: participants in communicative activity can "converse" by exchanging looks or smiles, or through touch.

Non-verbal communication can with ample justification be ranked alongside precisely formulated statements and its role in communication is no less important. In addition it should be noted that a two-way exchange of messages involves mental or emotional *contact* between the parties involved and often physical contact as well. Frequent reference will therefore be made to such *contacts* between partners in the course of interaction.

Reference is also made in the initial definition to the *co-ordination and uniting of efforts* on the part of participants. What then about cases of people quarrelling or arguing amongst themselves? Does this mean they are not communicating then? Such a conclusion would be misguided. Arguments and even quarrels merely signify that no coordination of efforts has taken place, that no common ground has been found yet in the course of their communication. People express their opinions, compare their ideas and try to defend their points of view while they endeavour to refute the arguments put forward by their interlocutor: this whole *process* is part of the coordination and uniting of efforts even if no positive *result* has been achieved. A similar point must also be made with regard to the last part of the definition—i.e. the reference to the *establishment of a relationship* and the *achievement of a common purpose* as the typical *goal* of communication. Sometimes—and alas frequently—the result of communication proves sad: people fail to understand each other and are unable to sort out their relationship. Yet while communicating they were actively engaged in probing the areas of disagreement between them and for this reason even if the outcome is negative interaction of a communicative type did take place.

From the above it should be clear that each participant in communication emerges in the course of that communication not just as a physical entity but as a personality. Examination by a doctor of a patient while unconscious does not constitute communication, nor does the setting of a customer's hair by a hairdresser, if the hairdresser concerned does nothing but comb the customer's hair. If, on the other hand, the doctor listens sympathetically to the patient's complaints and reassures him, or the hairdresser suggests various styles to his customer before they select one together, then, of course, communication does take place. While they communicate, people expect response

from each other and tune in to what the partner is saying. This means that in the course of such interaction both participants are subjects rather than objects, that they are active rather than passive.

It should be stressed at this point that the aspects of communication outlined above are inseparably linked one with another and that none of them can be omitted from the definition: for instance, interaction and communication should not be seen as synonymous, for not every type of interaction constitutes communication. Interaction between a subject and an object does not constitute communication. When a boxer during a training session lunges out at a punch-bag, which first swings away and then comes back at the sportsman, he is not in any way "communicating" with the punch-bag. Nor should too much emphasis be laid on the importance of the exchange of messages: without such an exchange communication is indeed impossible, yet on the other hand it is quite possible for an exchange of messages to take place without any communication being involved—for example when someone uses a data bank which then supplies him with the requested information. Finally the concept of communication can also be distorted if it is equated with the establishment of a relationship, since the latter is something that emerges as a result of repeated acts of communication and is a product of communication.

In the course of communication, while people are addressing each other, they are counting on obtaining a response, an answer. This enables us to single out acts of communication from all others. If a child, while listening, looks at you, smiles in response to your kind words and stares you straight in the eye, you can be sure that you are communicating. Yet if the child turns away, distracted by noise in the next room, or lowers his head to follow with interest a beetle in the grass by his feet, then the communication has been interrupted: it

has given way to orientational or cognitive activity in the child. Sometimes communication constitutes an isolated episode standing out from other types of a child's active pursuits; yet frequently it can be closely interwoven with some other—non-communicative—activity. In the case of small children communication, as a rule, is bound up with play, with exploring objects, or with drawing. A child can be listening attentively to your story, asking questions in order to clarify various details ("But why didn't the Granny shoot the wolf? Didn't she have a gun?"), but then suddenly his gaze will alight on a toy lorry lying on the floor by the table and, forgetting about the story, he will begin to load bricks into it. You do not mind, and are ready to take a break from the story. Five minutes later though the child will come up to you again and ask you to continue with the story. A child can be involved with his partner (whether an adult or one of his peers) one moment and then switch over to something quite different the next. Yet even short moments of communication such as these are not disparate fragments but part of a whole pattern of activity with rules and a sequence all of its own. Communication cannot be reduced to the totality of the short-lived contacts between a child and the people around him which are duly observed, although it is through such brief contacts that communication manifests itself and they provide the component elements of this object of scientific study. This is why communication as a psychological phenomenon subject to scientific analysis constitutes in some respects an abstraction.

Communication is like artistic creativity. No single picture taken on its own can reveal all aspects of a particular artist's vision of the world: even if we take all the pictures painted by him they only represent a series of his attempts to express his relationship to life and his fellow-men. This attitude in itself is more profound and broader than the sum total of its mani-

festations in art, which are only fragments of the whole. The same applies to the gift for communication peculiar to each individual: it manifests itself in the attention he pays to what his companion is relating, in his responsiveness to the tears of a child he encountered by chance, in a sincere confession to a friend; at the same time it also includes other skills or talents which, although not yet manifest, may nevertheless exist.

Communication as Communicative Activity

A clear concept of the object of study is extremely significant, yet in itself it is not complete: it is also important to grasp what place is occupied by that particular object among other traditional objects of scientific investigation. Psychologists have long been investigating man's feelings and thoughts, his abilities and various types of activity such as play, study and work. What place in this list should be occupied by man's communication with other people? This is a most difficult question since communication presupposes that people experience various emotions and then express them. Communication cannot take place without thought and speech, and it therefore requires of its participants activity all the time. This has led many psychologists to set communication apart as a separate, independent psychological phenomenon, of supreme importance among other such phenomena.

No proper investigation of communication can be carried out if its place among other mental and emotional experiences is not defined: we finally decided to regard it as a special type of activity, namely as *communicative activity*. Consequently the scientific methods and techniques devised by psychologists for the analysis of various types of activity would be used in this case as well, in order to investigate and gain an understanding of communication.

Psychological research in the Soviet Union relies on Marxist-Leninist philosophy, on dialectical and historical materialism. Materialist philosophers use the dialectical method when analysing natural and social phenomena. The main thesis of this philosophy as formulated by Karl Marx is provided by the assertion that consciousness is determined by being, i.e. that there can be no thinking and emotions not connected with material life. Human consciousness is the function of highly organised matter—namely the brain, and, as Lenin pointed out in his philosophical writings, constitutes a reflection of the world, "a subjective image of the objective world".* Man's life is an amalgam of his sensory material experiences gleaned in everyday life, the inner and outer planes of which are inseparably linked both genetically (in origin) and functionally (in the way they are manifested in reality). The processes of a subject's activity—which is initially external and practical but is later internalised as mental activity—come to constitute the essence of the transition of the material into the ideal.

Activity is a real process consisting of a whole series of actions and operations. From the outside it manifests itself in the form of various movements, but it also has an inner psychological implication. To analyse any kind of activity means finding out the purpose behind it, the needs and motives that give rise to it, and describing the various actions and operations that constitute the activity in question. A number of theories explaining the nature of activity have been elaborated by Soviet scientists. Foremost among these were the conceptions devised by psychologists Boris Ananiev, Lev Vygotsky, Alexei Leontiev and Sergei Rubinstein. The interpretation of communication used in this book is based on that expounded by Leontiev. The sys-

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* V. I. Lenin, "Materialism and Empirio-Criticism", *Collected Works*, Vol. 14, Progress Publishers, Moscow, 1977, p. 119.

tem he used to interpret the main structural components inherent in any type of activity is used here in the analysis of communication as communicative activity: the object of communication, the need for communication, motives for communication, the action of communication, the objectives of communication, means of communication and the results or products of communication. The next part of this chapter treats each of these components in detail.

The structure of communicative activity:

1. The *object* of activity occupies a prominent place in Leontiev's conception of activity. Indeed he even calls the conception that of object-directed activity. By object here is meant the object towards which the subject's activity is directed. In relation to communication the object of the activity involved is another person, the partner participating in communication. The interpretation of the object of communication often gives rise to certain difficulties, even confusion. Indeed, in the course of communication the second person involved does not constitute an object in the straightforward sense of the word, he does not represent merely a physical entity for his partner in communication. In the context of communication each person is another subject, an individual endowed with sensitivity and the capacity to respond to an appeal for communication. From this it would appear to follow that in communication a *subject* serves as an *object*. Yet the philosopher views subject and object as opposites, as poles apart.

The above paradox prevents many psychologists from interpreting communication as a type of object-directed activity and leads them to single it out as a psychological phenomenon all on its own. However, the paradox of "subject serving as object" need not constitute an insuperable contradiction. There is no denying that the individual qualities of a subject are studied

and analysed by other people and come to constitute the target of their attention. In this particular case the terms "subject" and "object" acquire a special nuance: "object" comes to mean the focus for the activity of partners in communication, while the "subject" emerges as the embodiment of the specifically human qualities of the individual, of the living personality endowed with consciousness.

2. The *need* for activity, according to Leontiev, emerges in the course of the activity and in its turn leads the individual on to new manifestations of activity. The issue of needs numbers among the most complex and least developed problems of psychology. A need is an inner phenomenon of an intimate, almost secret nature, of which more often than not the individual himself is only vaguely aware: it is something well hidden from the gaze of the outside observer. Yet at the same time needs provide powerful levers behind human activity. They determine people's selective approach to some objects or their indifference to others. They compel people to engage in work demanding considerable mental, emotional and physical input, or, on the other hand, to refrain from engaging in any activity at all.

The need for communication stems essentially from man's urge to find out about himself and to arrive at self-evaluation by way of discovery and evaluation of other people and with their help. While engaging in communication, individuals are focussing on each other more than during any other form of activity. People of course do learn about each other and about the people around them through other types of activity as well, because an individual manifests himself in study, work and play. Yet communication occupies a special place in the context of cognition and self-awareness, for it is directed towards another person as its object and the bilateral nature of the process, of communication or interaction, means that the

individual seeking knowledge becomes, in his turn, the object of cognition and the focus of attention for other participants in communication.

It goes without saying that people do not define their need for communication as an aspiration for knowledge and self-knowledge: "I think I shall go along to my friends and ask what they think about me!" On the contrary, the individual often fears finding out the truth about himself and seeks to avoid critical discussions which might touch upon himself. This is because we do not want to hear unfavourable criticism and because we are afraid of being misunderstood. Being in the midst of other people means that we are constantly able to compare our views and judgements with those of others, to glean information about our own abilities which we sometimes never dreamt we possessed. This is why man pines in isolation, suffers when separated from those he holds dear and derives such joy from the arrival of a friend or companion.

3. *Motives* for activity are presented by Leontiev in a most unusual light—they are interpreted as the object (or concept of the object) for the sake of which the individual engages in an activity. This interpretation of a motive makes it possible to avoid the far from precise, usual conception of a motive as a purely inner state of which the subject of the activity himself is often only vaguely aware. A motive, as interpreted by Leontiev, assumes material form, is substantiated as the object of the activity which stimulates the individual to become active. Insofar as people, in the course of communication, aspire to self-knowledge and to learning about other people, the motives for communication assume "object form", are embodied in those qualities of the individual concerned and of other people, for the sake of whose discovery and evaluation the individual entered into interaction with one or more of the people around him in the first place.

Each one of us represents an inexhaustible wealth of diverse attributes and qualities. Some of these come clearly to the fore even during the briefest of first encounters (an individual's style of behaviour, the way he conducts himself in public) while others (courage, dignity) are not visible to the superficial observer and only come to the fore in special circumstances. Moreover, the individual is constantly changing: we grow up, marry and have children, acquire education and move up the ladder in our chosen profession or line of work, come to know success or failure, and then grow old. As time passes the individual changes, so that in the course of a friendship that may last many years it is possible to keep discovering more and more new qualities in other people and in oneself. This means that the human being as a motive for communication is truly inexhaustible.

The various motives for communication have been grouped for present purposes into three main categories: *practical* motives which emerge in the course of joint practical activity engaged in by a child with one or more grown ups, when a child plays with adults, carries out household tasks, feeds animals, contrives something, or digs in a garden. During such activities a child will look up from its work and turn to an adult to ask something or announce something in connection with the task in which he is engaged. Another person might stimulate a child to communicate by helping him or giving him advice. In this role a second person begins to embody the practical motive behind the communication. Then there are *cognitive* motives behind communication that have much in common with practical motives but which involve "theoretical" rather than practical collaboration with other people. Questions, conversations, discussions constitute the essence of communication of a cognitive nature: meanwhile the cognitive motive is embodied in the attributes of the partner in the interaction linked

with his knowledge and capacity for thought and forming judgements. *Interpersonal* motives are not linked with joint activity. They are embodied in the moral qualities of the partner in communication, in his evaluations and experiences. Motives of this third category give rise to instances of "pure" communication, that is interaction set apart from all other types of activity constituting an independent occupation for a partner or partners during a given period.

4. *Actions* are the units which together constitute activity. An action can be defined as a complete act by an individual participating in communication directed towards another individual as the object of the communication. This interpretation of the units which constitute the process of communication may well give rise to doubt because, in the course of interaction, both parties are active and it might seem more logical to single out as a unit the complex act incorporating both the initial approach from the subject and the response to it, an act involving therefore at least two partners. It has however emerged in the course of experimental research as more convenient to confine observation to the study of the behaviour of one partner and to interpret his interaction with other participants in communication in the light of his particular actions. Two types of communicative action were singled out: acts of initiation and acts of response. The former are carried out without stimulus from others, when the subject turns to a person in his immediate entourage in an attempt to bring his influence to bear upon him in some way, while the latter are triggered off by actions of the first type. It is easy to appreciate that when taken as a pair, an initiation and a response together constitute a basic unit of interaction. Therefore, if we take as a unit of communication the action of one of its participants, we can identify the specific nature of communicative activity between several people and at the same time not overtax the observer by

compelling him at one and the same time, and with equal astuteness, to follow the actions of all those participating in the communication.

5. *Objectives* of communication are the goals towards which the action of a subject or individual is directed in the context of specific circumstances. Communicative activity is no exception to this rule, for while communicating people are also working towards achieving objectives. A communicative task or objective consists in attracting the attention of other people, establishing contact with them, enhancing interaction that has already begun and perhaps in restructuring the communication or even bringing it to an end. It is very important to work out what communication objective the person involved has set himself and how the subject then sets about reaching that objective: otherwise it is impossible to understand why he behaves in any one particular way.

The assertion by psychologists that people are reaching certain communication objectives as they converse, exchange glances and smiles, many seem strange at first. No-one sets them specific tasks or demands that they answer a difficult question. All this is true, and yet people do pursue specific goals as they communicate. The concept "objectives" is used in a specific way in these circumstances, implying that the person participating in interaction is seeking to obtain something from his partners, is aspiring for something, anxious to attract interest, to extract a response, to listen to another opinion. The "something" he is striving after in these circumstances indeniably exists objectively and constitutes the objective of the communication, yet *subjectively* individuals are by no means always aware of the objective. Despite this, the objective stimulates a person to engage in communicative activity and compels him to select appropriate actions best designed to enable him to achieve his particular goal.

6. *Means* of communication (operations involved). If an analogy is drawn between the structure of communication and the structure of a substance, then actions should be compared to molecules and the means of communication (or the operations involved)—to atoms. Just as an atom does not incorporate the specific characteristics of the substance in question, so a means of communication (or an operation) does not possess significance as something complete in itself (unlike an action that has a completed content). For the experimenting psychologist means of communication, or communicative operations, are of tremendous significance, for they are exposed to his explorative gaze. The psychologist cannot see needs or motives for communication, they are far removed from his gaze, even hidden from the consciousness of the subject (individual) himself to whom they belong. The psychologist has to guess about them while carrying out a complex, painstaking study of the available facts, comparing and checking them; and means of communication, or communicative operations, are actually such facts. The goals and objectives of communication are also not immediately accessible to the observer and they must be established in the same way, through the collection and recording of the communicative operations by the partners concerned. Even an action—the unit of activity that comes closest to the communicative operation—demands mental effort for its identification: the researcher has to decide how many separate operations need to be included in the action and where the dividing line between the last operation in one action and the first in the subsequent action should be drawn, and with which objective the action should be associated (for after all any deliberate action is bound to possess a purpose). This means that communicative operations are the actual facts the psychologist records in the reports of his observations; they provide the foundation and data-base of the ensuing analysis of communication.

In our experiments three main types of means of communication have been singled out—relational, representational and symbol-based. *Relational* means of communication (sometimes imitative in character) include glances, smiles, poses, all of which convey a person's relationship to his partner in communication. *Representational* means of communication as it were draw the essential content of the message to be conveyed: they include gestures, and movements of the body and hands which, in a simplified form, represent the desired action. Psychologists number speech among *symbol-based* means of communication for it is through words that any message requiring transmission, or any information to be exchanged can be conveyed in a conventional form, comprehensible to all who have mastered the art of speech.

7. The *products* of communicative activity are strictly speaking not singled out as a distinct category in Leontiev's theory, yet their emergence is taken for granted because once an active individual has started doing something with an object, some kind of result is bound to follow. It is this result which constitutes the product of communicative activity. More often than not the products of communication belong to the sphere of spiritual values. First and foremost there is the "common goal" referred to earlier, when the definition of communication was provided. If people begin to interact, striving to achieve a common goal through their joint efforts, they will achieve either total success, or some compromise or interim result, or they will suffer total failure. In all cases, however, even in the last, least favourable one, the work of those participating in the communication gives rise to some kind of "product".

In the definition of communication given earlier reference was made to the fact that the partners involved "establish a relationship". It is therefore natural to assume that a relationship will be among the products of communication. The most val-

uable result of communication is the love or friendship that arises between people and in general deep-rooted selective attachments, affections or sympathies. Yet in the course of communication incompatibility of basic principles and ideas adhered to by the various partners can also emerge. Relationships of this sort are also a product of communication, since they take shape when people make contact during discussion of their ideas and convictions.

Great importance has also been attached to such a valuable product of communication as the *image of the individual.* Here we are concerned both with the image of the subject—as he himself sees it—and his image of other people, his partners in communication. An image of the individual is bound to take shape in the course of communication, for by its very nature the need for communication involves a striving for knowledge and self-knowledge, for evaluation and self-evaluation. This means that an individual's communicative activity is aimed above all at finding out what other people are like and also at self-identification. Man comes to know himself and other people not only through communication, of course, but also through the results of other types of activity, yet there is no denying that the concentration of the activity of the participants in communication on each other creates optimal conditions for evaluation and self-evaluation.

As should now be clear from the above, the theory of activity as applied to general psychology has been used for the experimental investigation, description and interpretation of communication. The approach based on this theory has proved most fruitful and there now follows a short account of the research I have been carrying out in this particular field.

* * *

In recent decades the question of the relationship between children and the people they come into contact with has been discussed in countries outside the Soviet Union mainly in the context of two main schools—Behaviorism and Freudism. Advocates of psychoanalysis stressed the special importance of the mother in the life of the young child and linked her role with the fact that she satisfied the early in-born forms of sexuality in children (oral and anal) while suckling her child and washing the anal region and also with the fact that she satisfied his innate need for security. The collection of factual material to support this theory was drawn from observations and their interpretation was often far from strictly scientific, since they were made to fit in with Freudist theories concerning "libidinal tendencies" and the emergence of "object" relations between a child and his mother.

Psychologists of the neo-behaviorist school have collected a wealth of experimental material and analysed this in accordance with the classical "stimulus-response" pattern, i.e. the actions of children and adults were interpreted as the first or the second half of this formula depending on whether they constituted the first or second half of the pattern. Relationships between children and adults, on the one hand, and those between children interacting among themselves, on the other, were viewed by psychologists of this school as dependent upon reinforcement: they examined the relationship in the context of the same actions but now in the light of their motivating function. The interaction of the child with other people was virtually equated with his relationship to the world of things, and the only way in which this interaction was set apart from other relationships was by the use of the definition "social", which was used along with terms such as "stimulus", "response" or "reinforcement" and merely implied that the interaction "stemmed from man".

By the beginning of the sixties considerable experience had been gleaned by Soviet psychologists in staging relevant experiments and analysing relations between small children and adults. Prominent among researchers in this field was the well-known scholar and founder of the Soviet school of physiology and education of pre-school children Nikolai Shchelovanov. It was in the school of psychologists working under Shchelovanov that the so-called animation complex was first described, which was seen as the beginning of a baby's meaningful relationship with the world of his fellow-men. The term "communication" was used as well, although only to refer to conversation directed by an adult to a young child. Soviet scholars scored considerable success in the elaboration of scientific principles on which to base the education and care of pre-school children which attributed paramount importance to communication between adults and the children in their care, and to educational work with children from the very first days of their life. In the light of research carried out over many years it was established that often the main reason behind serious cases of under-development was a shortage of contacts between the small child and adults, i.e. a "communication deficit". Shchelovanov and his colleagues, however, who were specialists in related disciplines rather than psychology itself, quite understandably did not carry out psychological analysis of the material they collected. The concept of the "animation complex" was appropriate for describing work with babies, but it was clearly quite inadequate for work with children after the age of a year. Such concepts as "response", "signal" and "reinforcement" appeared sufficient for descriptions of the external picture presented by the interaction of children with the people around them, but it did not make possible a true understanding of the inner essence of their relationship or a meaningful analysis of the latter.

Work then began on the study of the child's interaction with his mother and other adults as *communication,* which in its turn came to be interpreted as a special type of activity, to be precise, it was examined as *communicative activity.* For the analysis of this activity the general psychological concept of activity as elaborated by Leontiev was used.

The adoption of this concept of activity immediately made it possible to research far more effectively into communication. Four important consequences of the approach to communication as communicative activity will now be outlined below:

1. First and foremost Leontiev's concept of activity helped psychologists to explain a variety of findings which previously had appeared excessively disparate, arrange them in a system, describe them in a logical sequence and identify causal links between them. It turned out that our findings fell naturally into groups based on the main component elements of activity. The core of this system emerges as the motivation-need pattern found in the communication between children and the people around them.

It turned out that the transformation of the need for communication and the identification of a new dominant motive brought in their wake changes in all other components of communication, raising the latter onto a new level referred to in our research as a *form of communication.*

2. The concept of activity we adopted made it easier to chart our prospects for future research; for example, the interpretation of the object of communication naturally led to the conclusion that the development of the self-image and concepts of other people to a significant extent depends upon the nature of the individual's communication with the people around him and is, so to speak, one of the specific products of communication. This appears quite natural if, in the context of commu-

nicative activity, the object or focus of a child's activity is another person, and at the same time the child himself cannot help but become the object of the reciprocal activity on the part of his partner. This is why plans were made to carry out experiments aimed at investigating various products of communication including first and foremost relationships (friendship, love, popularity), the child's self-image (social reflection or introspection) and the images he forms of other people (social perception).

3. The interpretation of communication as communicative activity makes it easier to identify its place within the system of other types of activity engaged in by the small child, the links between these forms of activity and the degree to which they are interdependent. Children's activities are diverse and varied, take place on many planes and at each stage of a child's development it is essential that the pattern of activities should be identified and described. It is now patently obvious that it is insufficient to study play, learning or manual work separately, in isolation one from the other, while ignoring the question of communication. After all people live and act together, even the very youngest of children; communication constitutes the communicative aspect of a broader concept—that of co-operation, which also embraces instances of independent activity engaged in by the partners. Failure to appreciate the importance of co-operation makes it harder to understand both the content and the results of people's joint efforts. If we take due account of communication then it is possible to come to grips with many remarkable phenomena involved in human behaviour.

While the relationships between pre-school children were being examined an effect was singled out that we named the "invisible mirror". On reaching the age of one year the small child develops a liking for the company of his peers, enjoys playing with them, and by the age of six children speak openly

of their desire to play with other children of their own age, preferring their company to that of adults. At the same time children of this age manifest a striking inattentiveness to each other. Toddlers of 10-12 months casually crawl over their playmate, completely disregarding his desperate protests. Children of eighteen months when placed in a special "confrontation situation" find it difficult to pick out among three children of their own age the one with whom they had previously played for three weeks at a stretch. Even children approaching school age react, according to our calculations, to roughly only 30 per cent of their partner's speech directed straight at them, letting the rest just pass them by. It emerges that absorption in a game leads to a situation in which a child, immersed in himself, looks attentively at his fellows so as to grasp how they react to him but hardly notices the 'mirror' itself, namely his partner in play. For this reason adults have to teach children how to play and communicate one with another. When a child is denied adequate contact with an adult then both his play and his communicative activity suffer. The specific features of play and communication, however, cannot be appreciated if they are examined separately.

4. Very important for research into the birth of communication is the idea of a *dominant activity,* put forward originally by Vygotsky but later elaborated in more detail by Leontiev. According to this idea an activity, dominant among all others, is one within which

(a) there emerge other new types of activity distinct one from another;

(b) clearly discernible emotional and mental processes take shape and are restructured;

(c) and on which the main psychological changes in the individual, observed over a given period of development, closely depend.

It thus follows that a dominant activity is the principal one at each stage of development and that all other types of activity, as well as conditions for a child's subsequent development, depend on it and take shape within its orbit. This idea of a dominant activity is used by Soviet psychologists as the point of departure for their periodisation of a child's mental and emotional development: each stage of childhood is identified on the basis of the activity dominant at the given period in the child's life.

The importance of the idea of a dominant activity for the interpretation of communication stems first of all from the fact that communication is the first dominant type of activity in the ontogenetic sequence. Our research has made it possible to establish that in the first six months of life a child's dominant activity is his emotional communication with adults. Some Soviet psychologists suggest that communication still occupies the position of a dominant activity later on, too—in adolescence (intimate and emotional communication with peers) and in old age (communication both with peers and with younger people).

In other periods of life communication is not a dominant activity. Its importance, however, does not diminish in view of this. In their communication with their elders children develop new powers and learn to tackle more complicated tasks. Through this communication there emerges what Vygotsky refers to as the "zone of imminent development", paving the way to a transition to a higher development level. When children are older, communication with their peers also provides similar stimulus for their progress.

It is quite possible that the significance of communication in people's lives should be examined as a separate, psychological category all of its own, on a par with the category of activity. Our experience has, however, provided grounds to assert that

the approach to communication as an activity is fruitful both for the organisation of experimental research and also for the theoretical interpretation of the findings of that research. This approach possesses many important advantages in comparison with the approach to communication as a particular type of behaviour or interaction, or as a totality of man's conditioned reactions to signals from other people.

The Role of Communication in Our Lives

It follows from the definition of communication provided earlier that communication enables us to organise joint activity. It is difficult to overestimate the possibilities which open up before us once our efforts have been united; as the saying goes—"Two heads are better than one". It is a well-known fact that two people, thinking in unison and constantly exchanging the results of their reflections, solve a problem far more quickly and more effectively, than if each one of them were carrying out his part of the work separately. In other words, joint efforts produce not merely the sum of the contributions concerned but allow us to achieve even more. Co-operation between specialists is likely to make it easier to avoid mistakes and find optimal methods of action.

A clear understanding of the object of communicative activity, the motives for it and its products reveals to us yet another important role that communication plays in people's lives, the way in which it helps them to know each other and themselves better. Men's acquisition of knowledge and self-knowledge is a major question that has occupied the minds of philosophers and scholars over the centuries. Men have always striven eagerly to attain an understanding of what they are, both as regards the individual and mankind as a whole.

The need for self-knowledge is not an empty whim: without a proper understanding of what he is capable and incapable of doing the individual would not be able to exist, he would be doomed to perish. For each one of us our self-image is a most important regulator of our activity. This need for self-knowledge is deeply ingrained in each one of us and gives rise to man's tireless endeavours to understand and evaluate himself.

The main source from which we glean knowledge of ourselves is experience, born of our activity. Man takes practical experience as his criterion of truth. In this context collective activity is of crucial importance. In the course of practical activity engaged in in the company of other people the individual becomes aware of the best opportunities available to him for reaching an understanding of his capacities: he can compare his success with what other people are achieving, he can observe how they relate to him, he can deliberately discuss with them his own achievements and shortcomings. Relationships with other people, that are personal in form yet at the same time social in essence and which take shape in the course of communication, provide crucially important instruments of self-knowledge. Karl Marx wrote: ". . . Man first sees and recognises himself in other men, as if in a mirror."* From this it follows that communication and self-knowledge are inextricably bound up the one with the other.

Yet we need to probe deeper than this. After embarking in earnest upon an elaboration of problems involved in communication, psychologists for the first time revealed, for all to see, the social essence of man, defining it as "the ensemble of the social relations".** In the works of psychologists of the old

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* Karl Marx, *Capital*, Vol. I, Progress Publishers, Moscow, 1974, p. 59.

** Karl Marx, and Frederick Engels, *Collected Works*, Vol. 5, p. 4.

school the sensations and feelings of their subject of investigation were studied and the speed of his motor reactions was measured; these scientists asked him questions about the methods he used to solve mental problems, yet the subject himself remained as it were in isolation from his fellow-men, bereft of clan or tribe: at best his age and physical fitness would be noted down in the records. Nowadays the situation is radically different. Psychologists still measure thresholds of photoperception, but now they take into account the fact that the subject, when he notices a patch of light barely visible in the darkness, thinks before he answers: he does not want to appear to the researcher as a stupid blunderer, but at the same time he does not wish to seem excessively cautious either. Not only does the subject look out for the patch of light but he also communicates with the scientist, and this fact should not be ignored. His cautiousness, or on the contrary his readiness to run risks, also evolved in the course of communication, but at an earlier stage—during communication with parents, friends, teachers—and so the above qualities have evolved over many years.

Thus man can be seen to be a social creature. People's social essence is revealed in the course of their communication concerning material and abstract phenomena. We cannot conceive of human society without communication. Within that society communication emerges as the means of cementing together individuals and at the same time a means of developing those very same individuals. Hence the reverse conclusion to the effect that processes of communication are social processes and that they cannot be reduced to no more than links between individuals. Individuals do not figure as some latter-day Adam and Eve when they communicate, not as two individuals alone and isolated in the Universe. When people make contact, each of them is linked by thousands of invisible threads to the human race as a whole; they represent their age, their country, their

people, their profession, their age-group, and therefore each of them is not so much an "individual" as a social entity.

Communication possesses another important role in men's lives. The more psychologists examine communication the clearer becomes the profound link between communication and the inner world of the individual. As early as a hundred years ago the Russian physiologist Ivan Sechenov wrote: "The whole range of specific emotional states which evolved from people's communication one with another ... provides the basis and regulator for all kinds of social life."*

In the course of communicative activity the inner world of one individual is displayed as it were to another, and at the same time the action itself presupposes the existence of such an inner world. Psychologists therefore conclude that the individual's inner world takes shape precisely in the course and as a result of various types of communication, and that consequently it exists and manifests itself in forms of communication.

The importance of communication in the shaping of personality is enormous. It is only in communication between people that the personality of each individual takes shape and develops. It is only through communication that the human personality manifests itself and is revealed. To understand the human personality is only possible after analysing the individual's links with other people. It is necessary to watch how the individual behaves in relation to immediate friends and close relatives, how he behaves towards people he is not acquainted with, and even towards his enemies. In the context of such relationships it can be established whether his is a noble character, how magnanimous he is, whether he is humane and unselfish. In his deeds not only does an individual's personality reveal itself: it also comes into its own, assumes reality.

* I. M. Sechenov, *Selected Works*, USSR Academy of Sciences Publishers, 1952, Vol. 1, p. 434.

Communication defined as interaction, in which partners relate to each other as one subject to another, can be referred to as a "subject-to-subject" relationship, different from other types of human ties—those of the "subject-object" variety, in which only one of the parties involved is active, while the other party passively submits to his influence. In communication a unique opportunity opens up for us reliably to identify the true value of another person and to treat him in the way he deserves.

The Importance of Communication in the Emotional and Mental Development of Children

The role of communication is of decisive importance in the development of man's psyche. Over fifty years ago Vygotsky put forward the idea that all man's emotional and mental functions initially take shape as external processes and in the beginning not *one* subject, but at least *two* subjects are involved in nurturing these and bringing them out. It is only gradually that these processes are internalised, developing within the one and the other psyche and correspondingly growing into internal components of each psyche of the two that were in contact. This is how the mental and emotional life of the individual takes shape. Initially a child uses his emotions and mental faculties only when he is interacting with the people around him, but gradually he begins to internalise them, and only after that do they become part of his own unique personality. All new mental and emotional processes are built up initially between the child and other people and it is some time before they become invisible. When he expounded his theory, Vygotsky used a great deal of factual material to substantiate it, and this he presented in a new and interesting light.

He asked the question: how do children learn to control their

behaviour? After all a baby acts in a spontaneous, unorganised way, without controlling himself in the slightest. It is easy to distract even a child of four or five, if he is subjected to outside noise or if someone comes into the room where he is working. In the beginning it is the adult who sets a child a goal and defines it. "Tidy the toy away and put it on your table" is a typical exhortation directed at a small boy by his mother. An eighteen-month-old child who has only just learnt to walk unaided will set off obediently, even willingly, to carry out such a task. If, however, he should encounter on his way a chair, on which a cat is sleeping, the boy will stop, look at the fluffy, cuddly creature and smile. As he lifts his hand to stroke the animal he will catch sight of the toy clutched in it—by chance, as it were. The child is surprised, for he has already forgotten what he is meant to do with the toy. He turns round and looks at his mother. "Go on, take the toy with you, put it on the table," his mother reminds him. If the room is large the adult may well have to repeat the command three or four times and watch carefully all the time to see what the little boy is doing, for he will be constantly side-tracked.

By the time a child has reached the age of six or so he has begun to behave quite differently. A group of children might be playing "Shops" and one of the group might be sent off to make his purchases: he has to bring back five items. "Sugar, sweets, noodles, bread, milk," the child whispers to himself looking out in front of him with an expression of utter concentration on his face. He goes over to the "shopkeeper", his cardboard money in his little fist, and on the way his lips move as he repeats his errand to himself. A child of that age does not need the same amount of guidance as the toddler: he has already learnt to retain in his mind the goal of his activity and to use various techniques to help him remember it (mouthing the words to himself, repetition).

Thought processes develop in a similar way. Before thought processes are internalised as logical operations, they evolve as external actions that are object-directed. A child touches things with his fingers, rearranges them, collects them together and divides them into piles. This is the stage of visual-enactive thought. One of the later stages is that of speaking out loud: a child talks to himself, charting out a plan of action for himself and commenting on what he is doing with the objects before him: "First of all I'll build a garage and then I'll put the cars in it... Like this... I'll put the car here and the lorry over there... Then there's the van to fit in... Vroom, vroom... Off I go! Let me through, open the gates!"

By the age of seven children will have mastered the art of speaking "in their head".

After showing a child of this age a maze for a short period an adult might ask him: "What path should the beetle take to get out of the maze?"

The child will think for a moment and then, looking into the far corner of the room with an "absent" expression on his face, he answers: "First the beetle has to turn right where there is a sign with a horse on it and then he must go as far as the second sign and come out into the path with a doll painted on it."

In this way the thought process gradually emerges, developing out of external actions involving the participation of other people and out of audible speech, directed first to others and later to himself, but also in an externalised form.

References to three sets of findings now point to the decisive importance of communication in children's general emotional and mental development. First, there are findings collected during investigation of children who have grown up cut off from society; secondly, findings from investigations of special features to be observed in the development of children who have been brought up outside a family in closed child-care institutions; and

thirdly, findings relating to the direct identification of the influence of communication on the emotional and mental development of children in specially designed experiments.

Features of the emotional and mental development of children totally isolated from society. There exist records of cases in which children were discovered who had grown up among animals, usually wolves, and which of course attracted a great deal of attention from scientists and the public at large. They are usually referred to as Mowgli-children after the famous hero of Rudyard Kipling's *Jungle Book*. Psychological research has shown that these children suffer from serious and irrevocable underdevelopment. It is admittedly always open to question whether their condition is purely the result of a lack of contact with other people: some children would appear to have been suffering from congenital mental deficiency: others could possibly have suffered injuries during their life among animals. By adapting to the life of animals the small child who has landed in their midst goes off at a tangent from the path along which children usually proceed as they develop. Without support from an adult human being a child will not avail himself of his chance to develop as *homo sapiens* and later he evidently loses this capacity altogether. Mowgli and Tarzan are not handsome youths with a proud bearing and radiant eyes, guiding their animal friends, as film-makers and writers would have us believe, but pathetic creatures moving about on all fours.

Development proceeds somewhat differently in cases where children grow up isolated from their fellow-men but *not* amongst animals. Kingsley Davis tells of two children who, in complete isolation from the outside world, spent in the one case five, and in the other six years shut up in an attic.* The first little girl,

* Kingsley Davis, "Extreme Social Isolation of a Child", in *American Journal of Sociology*, Chicago, Illinois, Vol. 45, No. 4, 1940.

Anna, was found in an extreme state of emaciation, unable to move unaided. After release from her "prison" the little girl lived another five years. By the age of ten all the physical consequences of her incarceration had disappeared—she looked healthy and well-fed, she walked well although her movements seemed a little stilted. However, her mental development was, to start with, no more than minimal and remained very low till the end of her days. Her speech and her ability to tidy up after herself remained at the level usually expected of a two-year-old. Some features of her behaviour and development gave substance to the idea that she had suffered from congenital dementia, although this was not proved conclusively.

The second little girl, Isabella, had grown up in more or less the same conditions as Anna. The only major difference was that she had spent a large part of each day in the company of her deaf-and-dumb mother. When first examined, Isabella appeared to be mentally deficient like Anna, although to a lesser degree. Her subsequent progress was rapid, however: after a week she began to produce isolated sounds and after two months of regular practice and exercises she could put together sentences. After nine months she began to read and write; after sixteen she had acquired an active vocabulary of 2,000 words.

Kingsley Davis was struck by the marked difference in the development of the two girls after they had been readmitted to normal life. In an attempt to explain this he pointed to two factors: (1) the difference in the living conditions and systematic training of the two girls once they had been "set free" and (2) Isabella's higher natural abilities. These differences without question had important bearing on the girls' development. It is difficult not to join with the psychologists who ask the quite natural question: why did the author ignore and fail to analyse the fact that one of the girls grew up in total isolation while the other was with her mother all the time? It is possible

that this fact also influenced the subsequent life of the children.

Another experiment worth mentioning in this context, despite its unique harshness to the children concerned, is that set up by Wayne Dennis, who attempted to follow the development of children exposed to a minimal number of social contacts and to minimum social input.* Two twin baby girls were used in the experiment. Between the ages of one and fifteen months the scientist and his wife went into the room where the children lived no more than twelve times during each twenty-four hour period, and then only to see to the children's immediate physical needs, never speaking to them or smiling at them, never meting out encouragement or censure, never caressing them or playing with them. The room in which the children lived only contained the bare necessities by way of furniture and all that could be seen through the open window was a scrap of sky and the top of one tree. There were no toys, pictures or ornaments in the room. The partition between the beds made it impossible for the sisters to see each other.

Despite these conditions the development of the children followed a normal course. The author kept a most thorough record of this development, noting the appearance of each new act performed by the babies; a total of 154 was recorded during the period in question. After comparing his findings with those relating to other children Wayne Dennis concluded that only three reactions were observed to be delayed in the case of his charges: grasping a ring hung up over their beds which swung to and fro, sitting up unaided, and standing up confidently. However, the introduction of a minimal number of exercises quickly enabled the toddlers to close the gap. Moreover the children

* Wayne Dennis, *Children of the Crèche*, New York, Appleton-Century-Crofts, 1973, p. 18.

not only developed at a satisfactory rate but also revealed a profound emotional attachment to the two scientists caring for them. The author of this study then goes on to draw the startling conclusion to the effect that a child's development during the first year of life proceeds in a totally spontaneous fashion and for this reason close contact between the child and an adult or the system of rewards and punishments, usually regarded as indispensable, do not for all intents and purposes add anything to the normal course of events: in other words, he totally rejects the crucial role of communication for the mental and emotional development of the small child. The experiment carried out by Wayne Dennis presents a sharp contradiction to all other scientific findings relating to the same topic. As far as we know, no one has taken it upon himself to repeat such an experiment, since it is not permitted to use babies in experiments which might in any way prove detrimental to their well-being. Nevertheless the well-known American psychologist Harry F. Harlow reproduced an analogous situation in his research, even introducing to the experiment numerous variations, some of which were to prove most revealing.* The difference however was that Harlow was working with baby rhesus monkeys. He raised one group of baby monkeys each in total isolation, others in the company of three similar orphans, and a third group in the company of wire-mesh models providing surrogate mothers. Each stationary surrogate mother had a wire body and in certain cases "she" provided the baby monkeys with certain additional benefits: a soft sheathing of terry cloth into which they could nestle snugly; a round wooden head sometimes complete with a crude "face"; a feeding-bottle full of warm milk protruding from the mother's "breast". The author made careful comparisons between the ways in which the baby monkeys grew

* Harry F. Harlow, "Love in Infant Monkeys" in *Scientific American*, Vol. 200, No. 6, 1959, pp. 68-74.

and developed in these particular conditions. The findings were as follows:

The baby monkeys who developed least well were those confined to cages where they were kept in complete isolation: they were sad, timid and at the same time aggressive, and after they were fully grown they were unable to become part of the troupe; they did not find mates and some of the females among these baby monkeys, after giving birth themselves, surprised Harlow with their indifference and sometimes even cold hostility towards their own offspring. The presence of a surrogate mother helped the baby monkeys to feel less fearful when they encountered unfamiliar objects and this, in its turn, meant that they were more active and curious. The little monkeys loved their surrogate mothers and it was clear that they set particular store by opportunities to press up against their soft "bodies". Harlow proceeded to conclude that it was precisely comfort derived from contact with a soft body that provides the basis for the love that the young monkeys feel towards their mother. Harlow's experiments make it quite clear that communication or at least a communication substitute was most useful for the development of the baby monkeys.

If we return now to the experiment carried out by Wayne Dennis, it is quite natural to ask why he obtained results which differed so drastically from those obtained by all other investigators, even those working with animals. The search for a solution to this riddle led to a more thorough perusal of the routine which Dennis set up for his subjects. Reading between the lines of the text it was possible to come across details which clearly pointed to contacts between the children and the adults, although the author himself did not attribute any particular importance to them. It emerged that the adults held the children on their laps when they were feeding them. Later Dennis writes that while outside the nursery he was able with

no difficulty to record the vocalisations of the children. It is therefore clear that the children, in their turn, would have been able to hear the adults' voices all the time and also that of their young daughter. In addition it should not be forgotten that the babies actually saw Dennis and his wife twelve times in each 24 hours. The writer admits that both he and his wife, who helped him look after the children, became attached to the children to such an extent that it was often difficult for them not to respond to the children's smiles directed straight at them. What guarantee is there that they actually did succeed in suppressing completely all expression of their fondness? It soon became clear that responses from the scientists were not limited to smiles! The author maintains that he did not communicate with the children in any way, but in one place he gives himself away and it is clear that the real state of affairs was rather different. Dennis relates how one of the little girls, at the age of ten months, when she saw her sister butted her head into her side, causing the sibling to laugh, clearly (explains Dennis) because she remembered how he and his wife *sometimes used to tickle her in the same way!*

There is no such thing as a miracle. The completely normal development of the Dennis girls was only possible in view of the adequate care they received from adults. Occasional reports in scientific bulletins, or the general press, about children who spent the first years of their lives in strict isolation from adults are tragic "experiments" devised by life itself. All such cases serve to demonstrate what a serious setback to a child's mental and emotional development results from the absence of contacts with the world of people: in such cases children were on the verge of mental or emotional abnormality, and indeed had slipped, more often than not irrevocably, beyond the limits of normality.

The mental and emotional development of institutionalised

children. As early as the end of the nineteenth century attention was drawn to the high mortality in both private and state children's homes, particularly during the first months of life. The children who did survive showed signs of general physical underdevelopment and in particular mental and emotional underdevelopment. By the age of three they did not yet possess the basic skills required for seeing to their own needs, were not toilet-trained and hardly spoke at all: they showed little response to words and gestures from those caring for them, either remaining passive to a striking degree or on the contrary manifesting restlessness and aggression. This range of symptoms is associated with the "institutionalised" child. Similiar phenomena were observed, attracting widespread attention, during the Second World War, when the European orphan population multiplied many times over.

This was how the French psychologist, René Spitz described the children in a children's home who had been looked after there since the age of three months.* Although well-fed and cared for, 37 per cent of them had died within the first two years at the home. Twenty-one of the original intake had survived. The youngest child at the time of writing was two years old and the oldest, four. Five of them were unable to move or sit at all, and three could only sit unaided, eight could walk with some support and five unaided, twelve children were unable to eat with a spoon and twenty were unable to dress themselves. The speech of the children had only reached a very low stage of development: there was only one who could build sentences, five could not talk at all and the rest could say between two and five words.

The most marked characteristic of these children was their

* René A. Spitz, "Analytic Depression: an Inquiry into Genesis of Psychiatric Conditions in Early Childhood", in *The Psychoanalytic Study of the Child,* New York, Vol. 2, 1946.

neurotic state, which the author referred to as their "anaclytic depression". The young children were pensive and sad: many of them kept indulging in disconsolate crying, but quietly, without any loud cries or shouts. The children bottled up their troubles and they developed a negative attitude to the people around them—they sought to avoid other people and shied away from strangers. The movements of many of the children were too slow and they were not drawn to toys: if they happened to chance upon them they would push them to one side. The appetite of these children was poor, they used to turn down food and were growing steadily thinner. Most of them suffered from sleepless nights.

Even more severe cases of underdevelopment in children deprived of normal contact with adults have been described. If separation from close relatives took place soon after birth and after that the child concerned was merely fed, then he did not emerge from his dozy state at all and only hunger or wet nappies would make him emit cries. Such children could not follow moving people or objects with their gaze even at the age of three and manifested no signs at all of mental or emotional activity.

In the fifties, a hundred orphans in a Lebanese home were examined by Wayne Dennis and Pergrouhi Najarian.* They found that the orphans lagged seriously behind the usual norms of development for their age but they also noted the specific nature of the conditions in which the children were growing up. The main negative aspect of their environment was connected with the staff themselves: the nurses looking after the small children were clearly apathetic and indifferent to their charges, taking no notice of any signs of interest or affection shown

* W. Dennis and P. Najarian, "Infant Development under Environmental Handicap", in *American Psychological Association*, Washington, Vol. 71, No. 7, 1957, pp. 1-13.

by the children. The nurses hardly touched the children: even while feeding them they did not place the babies on their laps but instead propped up a bottle for each baby on pillows.

Yet the chance to bring those children back to a normal life was there, they could have been brought back to a normal life among other people and given the opportunity to develop their potential. The only thing they lacked for this was help and support from adults. As soon as they were granted such help the picture changed radically.

Evidence confirming the effect of a lack of communication with adults in the case of institutionalised children, and demonstrating that it can only be overcome by later intensifying such communication, is most interesting. At the end of the sixties Harold M. Skeels published the results of his twenty-year observation of the lives of children in one particular children's home. He compared the slow movements, and the poor rate of development in seven orphans, who remained institutionalised for a long time, and the rapid development of the 13 others, who had been adopted at an early age and who had later grown up in families: although they had started out from the same level as the first seven, they had quickly overtaken them.

By now it has been reliably established that the reason for this slow development in institutionalised children is that they do not have enough contact with adults and what contacts they do have are not of the right quality: there is little emotional depth to them, encouragement for a child's success is rare, and close ties of mutual affection are lacking. In the family, a child receives the care and attention that are essential to him from his parents and other relatives. Of course, if a mother is healthy and can look after her child then the best, simplest and most natural thing for him is if she can look after her child herself.

While the instinct to procreate and care for their young in

animals is an obscure blind feeling, the love of human parents for their children is a radiant, pure and truly moral emotion combined with a deep awareness of the fact that children are heirs to the work of their fathers who can carry that work forward and complete it. In principle any adult could replace a child's mother, *provided* he be precisely aware of his responsibilities and have a clear understanding of what he should do for the child concerned and how he should look after him. This is where the scientist's work can really help—that of the physiologist, the pediatrician, the educationalist and of course that of the child psychologist.

The mental and emotional development of children within the family. For many centuries the family was patriarchal by nature. It was large and included representatives of three or even four generations. Traditions of upbringing within the family took shape spontaneously, reflecting the way of life and the culture of the people concerned, and also depending upon the nature of the individual family in question. Guidelines for bringing up children were passed on to new generations as unshakeable.

Yet in the last hundred years the gathering speed of social change has affected the sphere of family relationships as well. Their traditional forms have begun to change: large patriarchal families are becoming a thing of the past and are giving way to the so-called nuclear family (i.e. parents and children). There is a steady decline to be observed in the number of children in the single family and at the same time the close ties between individual family members are becoming fragile and unstable. In addition to all this the family has ceased to be the only environment within which the young child develops. The involvement of women in social production and also world wars which destroyed so many homes are the main factors which led to the spread of public provision for child care

throughout the world. Various types of child-care institutions emerged, ranging from play-groups to orphanages. Some of these establishments are only attended by children in the daytime, sometimes for a mere two or three hours a day, so they are able to spend the rest of their time with their family. In others they would spend five days a week, only returning to their parents at the week-ends and holiday times. Establishments of a third type are closed ones, in which children remain on a permanent basis: only a few of the children concerned would occasionally be visited by relatives and then only for short periods.

In recent decades researchers and all those engaged in child care have been showing increasing interest in child-care provision made by state and municipal organisations. According to the experts, the number of women working in factories and offices is growing steadily. The endeavour to analyse how care provided in public establishments influences the mental and emotional development of young children has brought on the scene the problem of "institutionalised" children, and raised the question as to how the personality and the behaviour patterns of the child cared for outside the home take shape.

In 1951 the World Health Organization published in Geneva a book by the British psychologist John Bowlby entitled *Maternal Care and Mental Health.* This book made a powerful impression on those who read it: the undeniable merit of the author lies in the fact that with reference to a broad range of factual data he makes it blatantly clear how crucial are relations with close relatives for the development of small children. Bowlby subjected to strictly scientific analysis such complex phenomena as love, attachment, temporary or permanent separation. Prior to Bowlby only fiction writers discussed such matters. It is difficult to overestimate the importance of Bowlby's writings. Yet at the same time there is every reason to believe that

the conclusions drawn from his writings for a long time severely impeded the expansion of public provision for child care in a number of Western countries.

Various studies have been published subsequently which demonstrated that there are no undeniable differences to be observed between children, who have only been cared for at home, and children, who have in addition attended establishments providing child care during the day-time. The important thing is that the adults caring for children in such institutions should constantly demonstrate their love and concern for these children and should in a variety of ways stimulate their development.

Soviet researchers also attach tremendous importance to the role of the mother in moulding a child's personality and stimulating his activity, yet they do not consider that such a role can only be played by a child's biological mother. The well-known Soviet child psychologist Alexander Zaporozhets stressed that even at the dawn of human history variable and firm ties between the child and numerous adults around him created favourable conditions for a child's development. A child's advance depends upon the quantity and quality of the impressions, which he gleans mainly from adults and thanks to their help, in coming to master various types of activity. In this respect a child's mother is just the person best placed to carry out these functions while interacting with her child.

We also acknowledge the great importance of the family, because it is within the family that there take shape the conditions which particularly favour the child's development, the transfer to the child of the historical experience gained by the human race over the centuries. The family is a unique social institution designed for the purpose of child care. It is within the family that socially accepted norms are imbibed and at the same time it is the family that provides the framework for

the subtlest of mutual influences when it comes to emotional contact and opportunities for interaction between individuals over long periods. Within the family children are able easily and naturally to learn to live side by side with other people and from an early age to imbibe moral values and cultural traditions. The family also comes to represent for children their first school in communication. Every day the child sees around him the living reality of his times and participates directly in that reality: he hears the judgements and evaluations made by his parents and observes the way they relate to other people and also to each other. It is within the family that the child is drawn into social relationships which provide the basis for the emergence of his adult personality.

Questions connected with child care within the family have been studied in detail by well-known Soviet educationalists such an Anton Makarenko and Vasily Sukhomlinsky. From their deliberations on this subject it is also quite clear that emotional ties between children and their relatives are extremely helpful to children, making it far easier for them to accept instructions from their elders. Within the family demands made on children are conspicuous for their regularity and consistency, which helps small children adapt to such demands: within the family a child is naturally drawn into the domestic and economic activity of the family which becomes his first school for life.

Yet in recent years doubts have been expressed with increasing frequency as to whether care within the family is sufficient to ensure the child's all-round development. The world of the family is after all an enclosed world and the busy lives of present-day parents often narrow down the opportunities for their communication with their children. Not all parents can pass on to their children the essential skills and knowledge in drawing, music or sport. In view of this family care is admirably supplemented by a broad network of child-care organisations.

These not only make it possible for parents to work and study but they also carry out important functions with regard to the child's upbringing: in establishments catering for pre-school education first-rate conditions are at hand enabling the staff to identify children's special gifts and propensities. In kindergartens, for example, magnificent opportunities are given to children to develop amongst their peers and children slightly older and younger than themselves, the socially valuable facets of their personalities are nurtured and the first seeds of the collectivist spirit are sown.

At the same time careful attention is paid to the need to create appropriate conditions in establishments of various types, in order to achieve the harmonious development of the child. It is beyond question that the development of children within and outside the family should be subjected to detailed and painstaking analysis. A programme for such analysis was compiled at our institute and we decided to identify how a child is influenced by the way he is cared for in various child-care establishments. Observations were made among children from a variety of age groups, starting from birth and up until the time children entered school (the age of seven in the Soviet Union at the time the book was written—*Trans.)*. The impact of living conditions and methods of child care used in the various establishments on several different aspects of the child's emotional and mental development was the particular subject of analysis. Listed below are the findings gleaned from this survey undertaken by the staff of our laboratory.

Child Development In and Outside the Family

Children up to the age of twelve months are completely helpless. It was natural to expect that these children would be those

who depended most on the conditions in which they lived. Initially the efforts of the researchers were focussed on babies in this age group.

The vigour and diversity of communicative actions. (Experiments conducted by G. Kh. Mazitova.) Sixty-four children were used in the experiments. Twenty-one of these children were being cared for in closed institutions (i.e. children's homes) and had no parents; 28 children had parents but for various reasons were being cared for in the same children's home, and the remaining 15 children were being looked after in their families.

Each baby took part in 14 different experiments aimed at identifying specific features of his emotional and mental development. To achieve more reliable results, all types of experiment were repeated twice, so that the psychologist concerned encountered each of the babies under observation 28 times. The experiments involved during these encounters can be divided into three groups.

In the first group (experiments 1-6) the researcher exposed the child to a variety of stimuli and observed how he reacted to these. The baby was lying in his/her cot while under observation and the researcher was standing at a distance of 50 cm. During the first encounter the researcher looked at the child in silence, during the second he smiled as he looked at the baby and during the third he looked at the baby without smiling and calmly uttered a few sentences addressing the child by its name, e.g.: "Annie darling, what a good girl you're being today, poppet."

After a short pause the adult repeated the sentence. As he progressed from the first utterance to the fifth repetition of the same sentence, the speaker's affectionate attitude to the child was clearer and more emphatic.

In the second group of experiments (7-11) the adult remained

passive but stood near the child and gave him/her the chance to behave as he/she wanted. During each of the following encounters the researcher moved nearer to the child and by the eleventh encounter he was sitting right next to the cot and placed his hand near the baby, almost touching him/her.

It is important to add here that besides the researcher, in experiments 1-11 one of the child's relatives and a familiar adult were also participating: they would come into the child's presence one at a time and would go through the same procedures as the psychologist. This made it possible to observe in which respects the child's behaviour remained the same and in which respects it differed, depending upon which adult addressed him as he lay under exactly the same conditions.

In the third group of experiments (12-14) the situation was rather different. Now a number of adults went up to the child's cot simultaneously: a relative (mother or father, if the child had parents), a familiar adult (nurse or nanny) and finally a stranger, whom the child had never seen before. All these people arranged themselves in such a way as they stood round the cot so that the child could see any of them if he/she so wished. Then they all said simultaneously to the baby: "Come and let me pick you up!" As during the first experiments, the active encouragement from the adults increased with each encounter.

All nuances of the state of the children, their emotions and actions were recorded and then an overall picture of the babies' behaviour was compiled on the basis of these findings, two aspects of which were singled out in particular.

The first was the *vigour* of the child's responses—reflected in the force and frequency of the manifestations of various specific features of the child's behaviour, such as the force of his emotional response or the number of active moments, etc.

The second aspect was defined as the *qualitative* nature of the behaviour involved and was expressed in the wealth of nu-

ances found in one or the other reaction. Under this heading came the qualitative nature of the emotional manifestations and the wealth of different initiatives displayed.

More vigorous responses were observed in the children who had parents, moreover, it seemed to make little difference whether the children lived at home or in the children's home. On catching sight of his mother the child would give a smile of unusual warmth and would be ready to respond with peals of laughter to her joking attempts to "butt" him. When the baby noticed that his mother was making ready to leave he would start up with a piercing cry and cling to her, making desperate attempts to keep her near him. An orphan of a similar age behaved quite differently on encountering the adult closest to him—his nursery-nurse. He would smile in answer to her greeting, yet his smile was not so radiant and faded more quickly. It was more difficult to make the child laugh. Sadness at the departure of such an adult would be expressed in a sad expression, through arms outstretched towards the departing nursery-nurse and a long gaze in the direction in which she had disappeared from sight.

The wealth of reactions, which depended mainly on whether the baby lived in his or her family or in the children's home, presented a rather different picture. The babies who had grown up at home exhibited many different features of behaviour, some of which were most original. Emotions were expressed by these children with a wealth of nuances: they played up to adults, pouted at them, smiled coquettishly and cried inconsolably. The actions which they undertook on their own initiative were also beyond number. On seeing his mother, one little boy aged only eleven months threw up one of his hands in delight and with triumphant cries he would start running round his play-pen. He could not bring himself to let go of the edge, not yet being very steady on his legs, but he stubbornly clung

to it, for it was the only way in which he could express the delight welling up inside him at this long-awaited meeting. Another of the babies, a little girl of eight months, used to collect little pieces of the thread and specks of dust and all the time kept on calling out in demanding fashion for her mother to come and look at her "treasures". In the children's home children would exhibit more standard reactions. In similar situations their behaviours appeared less original and inventive.

All in all it emerged that close ties with the mother enhance the vigour of all types of infant behaviour and that growing up within the family fosters a rich diversity of actions in small children. It is not difficult to find the reasons why. A mother and other close relatives communicate very intensively with babies, vividly, even boisterously. Everyone has seen the kind of affectionate caresses which relatives shower on babies—kisses and hugs will follow in rapid succession, an adult will press his or her face to a child's warm soft body and stroke it with his or her hands.

Yet an adult's annoyance and anger are no less vivid. If a child does not want to eat, his mother grows angry, becomes worked up, raises her voice and perhaps even slaps him. If a child has knocked a cup off a table by accident his elder sister might shout at him; if the baby by so doing had spoilt the drawing prepared by his sister for the next day's lesson, she might complain to the parents or take his favourite toy away from him. In any "institution" providing child care manifestations of this extreme type are not found: pleasure is expressed in mild smiles and a warm tone of voice; irritation in short reproaches, knit brows. The emotions experienced by the staff are more subdued, as are the manifestations of those emotions; they are flat and lifeless compared with the emotions of close relatives. This is inevitable because those working in child care cannot expend emotional energy on each of the ten children in

their charge with the same generosity as is found within the family, where all the adult members focus their attention on one single new baby. Children model their expressions on the models provided by adults and their emotions reflect the emotional heat engendered by their elders.

We should be inclined to link the wealth of responses and initiatives discovered by children growing up within the family with the wide diversity of tasks which they encounter. They are often turned to by relatives or acquaintances for a host of different reasons: adults are often patting or kissing children, handing them something, playing with them. All these different circumstances demand of the child flexibility, the ability to adapt his behaviour at a moment's notice and to react with new responses to unexpected stimuli. These circumstances in which a child finds himself mould the plasticity of his behaviour. Within an institution the tasks confronting a child are stereotyped and the demands made by adults on the children are monotonous: this in its turn leads children to establish a simple arsenal of habitual responses approved by the teachers which they will then proceed to use with enviable consistency.

The need for shared experience. (Experiments conducted by S. Yu. Meshcheryakova.) Another experiment aimed at comparing the behaviour of babies who had grown up in different conditions focussed on the needs of small children for sharing experiences with adults, in other words, on the young child's endeavour to share pleasure and disappointment with another person, to derive support from his sympathy. This is a very valuable side of the child's emergent personality: it bears witness to his reluctance to remain isolated, it gives expression to his inclination to communicate with people around him.

The researcher set herself the task of establishing the earliest stage at which a child's need for shared experience first appears and which circumstances call it into being. Meshcheryakova

suggests that this need in children takes shape gradually throughout their lives and that the way this need develops depends on the way adults behave towards the children in question. If the adults themselves carefully observe a young child's experiences and respond sensitively to the latter, then the child gradually becomes sensitive to the moods of the adults in his turn and becomes used to sharing sorrow and happiness with them. If adults only rarely respond to children's feelings and then only half-heartedly, their need for shared experience will take shape slowly and not develop very far.

Sixteen children aged between ten and fifteen months took part in this experiment. Eight of them had grown up with their parents in a family situation and eight had been orphans and had been brought up in a children's home. After each individual child had been taken into a room on his own, he was shown a carnival mask by Meshcheryakova. When the children saw the unfamiliar object, they grew anxious, and some of them even took fright. A minute later an adult would come into the room. For the children in the first group it was the mother who came in and it would be a nursery-nurse in the case of children from the second group. The children who had grown up in the family setting immediately hugged their mother, clinging on to her, looking into her eyes and then burying their faces in her shoulder. Some of the young children even began to cry. The mother would caress the child, reassure him with tender words and stroke him. After about 20-30 seconds the children would begin to take timid glances in the direction of the mask. Within a minute they were already turning round and boldly looking at it. Then after 3-5 minutes the bravest of them would be stretching out their hands towards the mask, taking hold of it, examining it and showing it to their mother.

The children from the home behaved differently. When their nurse appeared they calmed down a little, yet remained on

their guard. The children did not cling to the adult, but tried instead to shift their attention to other extraneous objects. The nurse would often be viewed by the child as just such an extraneous "object": the child would pull at her white coat and look searchingly into her face trying to turn away from the alarming object. No interest or curiosity about the mask was manifested by the children, who made no attempt to grasp the mask or to examine it.

On another occasion the psychologist showed the children a pleasant object, a "Wobbly" doll. Its pretty face, rhythmic swaying movement and the tune it made delighted the children. Both the children who had grown up in families and those from the children's home at first watched the toy transfixed, and then a smile broke over their faces: some timidly stretched out a hand to the doll, and others jumped up and down in excitement, while still others babbled a rapturous response of some sort. Then came the moment for the adult to enter. The children who caught sight of their mother turned to her at once and, smiling broadly, with their eyes invited her to admire the doll, some of them even holding out the toy to their mother. The pleasure of these children had been greatly enhanced. The young charges of the children's home also turned to the adult who came in, but they did not encourage the adult to admire the pleasant sight together with them. The doll was seen as an object that had nothing to do with the adult and the child's emotions in response to the toy remained exactly the same as before.

The experiments outlined above confirmed the differences between the needs to share experience found among the two groups of children. Inside the family children learn at an early age to share their emotions with adults, whether it be fear or pleasure: the involvement of an adult enhances young children's pleasure and helps them to overcome their fear. Small

children brought up outside the family and without parents experience their emotions in isolation from other people, and thus for a long time cannot overcome their timidity, while pleasure experienced in the company of adults does not acquire any additional nuances.

It therefore follows that in the first year of life, if a child is brought up without the involvement of parents in a closed institution, the cogency of his feelings and his initiative will be reduced, they will become less colourful and exciting and thus slow down the emergence in the child of the need for sharing experience with adults.

The Effect of Life in Institutions on Small Children

Research carried out by T. M. Zemlyanukhina was aimed at comparing children of between one and three years of age, who had close relatives and who attended a crèche during the day, with children from the same age group, who were orphans and brought up in a children's home. Thirty two children were studied—two groups of sixteen.

Communication with adults. The main difference between the children in the two groups emerged in the course of their interaction with adults. It is worth mentioning that children from both groups quickly took to the new adult in their midst —the psychologist. They looked forward to her arrival. As soon as she opened the door, the small children left the toys they were playing with and moved over to the wall of the play-pen which was nearest to the door. Some of them ran across their play-pens, some dropped down on to their hands and knees and crawled across, but they all without exception hurried to meet the popular new "auntie".

Zemlyanukhina would take each child into a separate room where the observations were carried out: the child would be seated at a low table and given a toy, and after this the researcher left the child on his own.

A short while later Zemlyanukhina would return and, without saying anything or smiling, would just look at the child for three minutes. Then she would go over to the child and would look at him without saying anything for another three minutes, but by this stage smiling as she looked. After that the child would be left on his own for a second short period again. When the researcher returned the second time she would go right up to the child, pat him on the shoulder, watch him using a toy but not react in any way to his manipulation of it. During the next three minutes the researcher would encourage the child five times.

During the final three minutes the researcher would on the contrary criticise the child (also five times). The scoldings would be gentle ones and would be uttered in a mild tone, but nevertheless they would be disapproving in content like, for example:

"No Sasha! Don't take the shoes off the doll! They'll get lost and then Katya would have to go barefoot!"

Or: "Don't spin the car wheels round so fast! You might pinch your finger!"

This pattern of behaviour on the researcher's part made it possible to define clearly the nature of the relationship that was taking shape between her and the child, and most important of all it made it possible to compare, in one and the same setting, the ways in which children behave who have been brought up in different conditions. It emerged that the reactions of the children from the two groups had a good deal in common. Children from both groups began at once to play with the object offered them and attempted to make contact with the

adult when she appeared, offer her the toy they were playing with touch her dress and belongings, show her their own garments—their headscarves, shoes, shorts—particularly if the garments concerned were new and brightly coloured. Yet there was a considerable number of differences to be observed as well.

The children from the day-time crèche would attempt to communicate with the new adult straightaway. They would boldly beckon the adult over to them and to whatever they were doing. Smiles and laughter conveyed their happiness and their babblings and words testified to attempts to tell the new adult something. The orphans from the children's home confined themselves to timid glances at the new adult from a distance. It took them twice as long to start making contact and they gave expression to their emotions between 8-10 times less frequently than the children being brought up in their families, especially when it came to attempts to make verbal contact. The children reacted differently to the actions of the researcher. The children from families would pester the researcher if he said nothing or only smiled, whereas the children from the home came over numb, waiting to see what would happen next. These orphans only became animated in response to being patted and spoken to by the researcher. The effect of praise on the children from the two groups was also different. Praise made the day-time children more active, it served to speed up their activity and make it more varied, whereas scolding made those same small children sad and some of them angry, so that they began arguing with the researcher; some of the children from the first group walked away altogether. During the researcher's next meeting with the children, a good deal of time would be required to persuade the offended child to come and cooperate with the researcher again.

Children from the home, on the other hand, proved to be far less sensitive vis-à-vis the adult: they enjoyed the praise but

it did not alter the nature of their activity significantly and when the researcher switched from praise to scolding they appeared not even to notice the change. It appeared that the most important thing for them was the understanding and kind tone of the researcher's voice, while they seemed hardly to differentiate between the two sets of remarks with differing content.

Specially devised analysis of the data collected enabled Zemlyanukhina to establish that between the ages of one and three the differences between the two groups of children widened: the children who had no close relatives and who lived outside a family framework began to lag further behind their peers in the other group.

Communication with peers. Another matter which was of great interest to us was how communication with peers evolved in children, who had grown up in different conditions. It was understandable that skills for making contact with adults should be lacking in the children's home, because the children living at home had their parents and other relatives, whereas in the home each member of the staff would be responsible for a group of children. When it came to other children of the same age though, there was no shortage of those at the children's home.

Three experiments were carried out in order to provide an answer to this second question. Three children who knew each other well were brought into a separate room where the investigation was to take place. They were placed in one playpen and at first the three were left there together but with no toys, while the adult researcher sat in the same room, not far away, but simply in the role of observer. On the next occasion the children were given a set of simple toys to share between the three of them—a pyramid, ball, doll, bear, comb and toy brick. On the third occasion three identical sets of toys were provided. The psychologist conducting the experiments did not

interfere in the children's activities in any way, except when they began to fight with excessive aggression.

The findings revealed a substantial difference regarding the communication between peers from the crèche on the one hand and that between peers from the children's home on the other. Far more contacts were made between the peers from the crèche and these contacts were far richer in content. These latter children paid twice as much attention to one another and they expressed their feelings to their play-mates one and a half times more frequently (than the children from the other group). It should however be pointed out that even the children from the crèche were not yet able to perceive the moods of their peers, to share their happiness and sorrow and more often than not ignored even the simplest attempts on the part of their peers to address them.

According to our calculations the children at the crèche initiated communication much more frequently than they reacted to attempts made by their peers to address them. The most common means used by the children from the children's homes to communicate with their peers was expression of emotions. Many of these were negative emotions. Children would be wary of the "bull-dozer" behaviour of their play-mates, common in children at that early age, particularly when intervention on the part of adults is rare. A child of between twelve and eighteen months can clumsily tread on a child lying nearby, so as to be able to reach up higher, or knock over a standing child by grabbing hold of his dungaree straps so as to pull himself up on to his, as yet, not very strong legs. Overall it was observed in our experiments at the children's home that the children interacted with each other only half as frequently as did the children from the crèche, and that they preferred to play with toys or other objects within their grasp on their own, or simply not to do anything in particular.

Toys distracted the children's attention from each other. Yet at the children's home each of the three children in the group under observation hurried to grasp the toys, held on hard to them, hiding them and not so much playing with them as protecting them against any interference on the part of his playmates. This approach severely hindered the children from making contact with each other. In similar circumstances children from the crèche behaved in a bolder fashion: they quarrelled more frequently over their toys, tried not only to hang on to their own, but also to get hold of other people's. On the other hand, though, they more often co-operated with another child, exchanged toys and even played together the same toys. As they grew older the children in both groups began to communicate more with their peers, yet the gap between the levels of communication achieved in the two cases remained as wide as before and even increased somewhat.

All in all we noticed that when children have insufficient opportunities for communication with adults then their communication with their peers suffers as well, and that, despite the continuity and the abundance of interaction between peers in a closed children's "institution", these do not ensure real progress in that interaction.

Curiosity. A child's activity directed at the exploration of his surroundings is a most important aspect of his emergent personality. It helps the small child to be able quickly to come to terms with any situation he may find himself in and to collect a rich store of knowledge about the objects in his environment and their properties, to understand how various phenomena are interconnected and to adopt an active rather than passive style of behaviour. We started out from the assumption that a child surrounded by caring parents would show a higher level of curiosity than an orphan of the same age: after all at the age of one and two children are still virtually helpless and

a bold search for new impressions always involves danger, *except* when a loving adult is at their side to protect them. One person cannot keep such careful watch over a group of several children, so high degree of activity on the part of a child becomes a source of potential danger in the second situation. A child then acts cautiously and gradually starts to adopt a passive stance, which means that his curiosity is maintained at a relatively low level.

In order to test out this hypothesis Zemlyanukhina organised four different experiments. First of all she gave each child an uninteresting object and asked him to play with it while she finished her work. The child would sit down at a table where there had been placed, in advance, a tea-pot with a broken spout, an old dust-pan, a child's sock or any other ordinary, shabby object in daily domestic use. In each of the three experiments a different object was used but care was taken that its "power of attraction" should be of the same order. The child was given ten minutes to explore the object but if his attention wandered from it for longer than a minute more than three times, then the experiment was abandoned. In this first experiment it was possible to assess accurately how much information the young child was able to obtain in the sparse circumstances of the experiment and to observe how he handled the object.

In the second experiment twenty different objects were laid out on the table—dolls, crockery, toy cars, a comb, a skipping rope—and these were initially covered with a cloth. The child was led over to the table and the adult would then whip off the cloth.

"Play with whatever you like", was the suggestion that would be made to the child taking part in the experiment and then for five minutes the researcher would take note of the child's actions from a distance. It was necessary to observe which was

more important for the child—to play or investigate—and which form of activity with the objects provided he preferred.

In the third experiment the child was shown the toys but they were arranged in an unfamiliar way—on the floor, inside squares drawn with chalk. In the centre of each square stood some toy or other with which the child was already familiar—a toy dog, bear, pyramid or ball. The adult researcher would open the door into the room and invite the child to come in and occupy himself with whichever of the toys took his fancy. The experiment lasted five minutes and enabled the researcher to observe how the children concerned reacted to the unusual setting, within which, however, there was nothing that might alarm him.

Of particular interest for us was the fourth experiment which we used to refer to as the "secret box". Each child was sat down at a table and left to play with three boxes, which looked identical and which rattled when they were shaken, as something inside them was moving about. Two of the boxes could be opened easily: when the child opened the lid he would find inside a marble or a plastic apple. The third box however could not be opened the same way: a button on the side of it had to be pressed first. The adult observer gave no prompting regarding this secret; indeed he did not even set the children any specific task but merely pointed to the table saying: "You play now, while I finish my work!"

The child's curiosity in the experiments involving the "secret box" assumed a special form, which in experiments involving adult subjects is referred to as "creativity" or the capacity for mental creativity. An individual possessing this capacity sets himself a task and attempts tenaciously to carry out that task successfully. Another individual, whose curiosity has not yet "risen" to the creative level, does not search after any tasks at all. If he alights upon some secret or other by chance then

he does not explore it for long and is perfectly content to leave it unsolved.

Children from the crèche group exhibited considerable curiosity in all the experiments. They rushed over towards the toys straightaway, manipulated them all for a long time and in a variety of ways. These crèche children took delight in the dresses of the dolls, the bright colours of the toy cars, the fluffy fur of the soft toys. They let out cries of joy, laughed, gurgled and moved about the room in a lively fashion. The children from the home, on the other hand, were slower in their movements which were also more stereotyped: their voices were subdued and they expressed controlled satisfaction rather than boisterous joy. In the experiment where the children were presented with one toy, the children from the second group quickly left it on one side and then in boredom looked round at the adult present. When confronted with twenty toys these children grew worried and their movements went disorganised and by the end of the five-minute period they were completely bewildered. The closed box complete with secret did not arouse any particular interest on the part of the children from the home. The unusual presentation of the toys inside the chalked squares confused these children: after stopping in their tracks at the threshold of the room they took a long time to pluck up enough courage to go into the strange room. The boldest among them began, after one or two minutes, to make their way slowly into the room, keeping close to the wall: then they would sit down by one of the toys and touch it timidly, casting glances at the other objects laid out. Two of the children were not brave enough to venture into the room at all; they turned back and the expression in their eyes, which were nearly popping out of their heads, clearly showed that they were frightened out of their wits.

The children from the crèche also perceived the unusual

appearance of the room in which the toys were laid out in chalked squares. Yet it thrilled them, made them throw up their hands in delight and with exclamations of surprise they ran into the room. Next each of these children either collected all the toys together in a pile and began happily manipulating them or ran from one square to the next, calling out to the adult such remarks as:

"Here's a flag! This way, that way!" (complete with a wave of the hand).

"Here's a car! I know ... one like that drives up to our house in the morning!"

All the children from this first group discovered the "secret" and four of them (who were over two) investigated the box for a long time and found the button; then three of them succeeded in opening the box completely and the fourth, only in part. It was typical of the children growing up in their families that they were able to derive a great deal of pleasure even from the simplest of toys or objects.

Children from the crèche group were more active in their exploration of the world around them, they were braver, and more resourceful in their actions and experienced more joy as a result of their discoveries. The children from the second group remained passive, were on their guard and quickly lost interest in things that were new to them: they did not derive particular pleasure from encounters with unfamiliar objects or people. Between the ages of one and three the gap between the two groups grew wider, particularly when the children were confronted with the "secret box".

It can thus be concluded from the above findings that the mental and emotional development of young children (under three) advances most satisfactorily in the case of children who are living at home, even though they spend part of the day in a crèche. The lack of parents in the case of orphans and

the fact that these children are living in somewhat monotonous surroundings, affording little variety, serve to hold back, to some extent, the capacity of these children to communicate with adults, with their peers and also their curiosity and desire to explore their surroundings.

The Development of Pre-school Children In and Outside the Family

The research described above gave us grounds to conclude that the mental and emotional development of babies and toddlers depends to a significant extent upon their communication with adults. Between birth and the age of three the influence of interaction with adults becomes increasingly important: this influence becomes stronger and extends so as to embrace an ever-widening sphere of mental processes and emotions. The next question to be answered was, what part did that same communication play in the lives and development of pre-school children? Children from three to seven are also very young and in the care of adults round the clock. We need to ask ourselves whether their capacity by this stage to join together in peer groups does not to some extent weaken their dependence on adults? A number of further experiments was carried out with children aged between three and seven, which all served to demonstrate that the importance of contacts with adults remains considerable during this period as well, although the nature of those contacts has changed somewhat.

Twelve children aged five and six were used for such a study, carried out by I. Zalysina. Six of them had parents, lived at home and attended a kindergarten during the day-time. The other six were orphans and lived all the time in an orphanage for children aged between three and seven. The situation

chosen for observing these children was of a somewhat unusual nature. Two children, who were friends (as the researcher had been informed by the children themselves), were brought into a room, given chairs to sit on, and were then shown a series of slides. These included the adventures of little animals, a sad story taken from the life of puppets; there were also slides illustrating various children's holidays and a comedy about a mischievous boy—all in all the children were entertained with a large number of different stories in the ten sessions in the course of the study. The researcher read out the accompanying text for the slides with expression, providing appropriate voices for the various characters and carefully following the behaviour of her subjects as she did so. Each session lasted twenty minutes, but at the end of the slide shows the researcher did not lead the children out of the room immediately but instead she let them talk for a few minutes before they left and recorded what they had to say on tape.

Right from the start we had expected that watching the slide shows would arouse a variety of reactions from these pre-school children. Would they give expression to what they had experienced without hiding their feelings? Would they share their experiences with each other? Would they feel the urge to involve the adult in their "discussion" so as to share their emotions, to talk over things they had not understood, to find out the opinions of someone for whom they had respect? Most important of all, would differences emerge in the responses from pre-school children from the two groups, those living at home in their families and those living in the children's home?

All the children without exception showed considerable interest in the slide shows, even though they expressed this interest in different ways. Some were at a loss for words, finding the experience literally breath-taking. Others reacted to the same slides and stories with noisy excitement. Against a back-

ground of individual differences between one child and the next, certain features common to the responses of each group also emerged. The pre-school children from the children's home were unable to concentrate for long periods. They were soon distracted and started looking round the room and pulling at their clothes. They would begin untying and retying their hair-ribbons for no reason or taking their handkerchiefs out of one pocket and putting them into another. They would start asking questions at frequent intervals that bore no relation to the slides. The attention of the orphans was distracted four times more frequently than was the case with the children from the kindergarten.

The emotional responses of the children also differed. When the slides were shown to the kindergarten children serious concentration alternated with lively excitement: they might jump up from their chairs, run up to the screen or imitate the actions of the characters they saw on the screen.

"Where are you hurrying to, Little Red Riding Hood?" asked Kolya, repeating the words of the wolf, frowning sternly as he spoke and looking first at the screen and then at his small friend Lena who burst out laughing.

Attempts to imitate the characters on the screen were fifteen times more frequent among the kindergarten children than among the orphans. When it came to the children brought up without a family, either their happy involvement was less intense or it was expressed less spontaneously: their smiles were fainter and they laughed six times less frequently than their peers who had parents. Yet in the orphanage quiet comments from the children of the type that follows were heard twice as frequently:

"How smart she looks!"

"He wags his tail all the time..." or even whispered "exclamations" such as: "Go on, now, go on..."

Taken all in all, the researcher had reason to conclude that the children in the kindergarten reacted in a more lively way and were more emotional in their response to the slides.

Contacts between each of the children involved and an adult had begun before the slides were shown. Children from both groups were only too happy to accept the invitation to take part in the experiment. They rushed straight over to the researcher and they all clamoured, in eager rivalry, to go along with her. They ran into the room indicated, hurried to take their places and began to ask what the stories would be about, whether they were long, what they were called, and were obviously looking forward with joyful anticipation to the treat in store. At the same time, many of the pre-school children came out with their pieces of news in a rapid torrent of words that had no bearing on the slide show, but clearly was very important to them:

"They checked for holes in our teeth today!"

"Vovka smeared toothpaste on the wall!"

"It's holidays now and Granny and Grandad have come to stay!"

After the slide show the children lingered on in the room, came over to the researcher, looked hard at her face and started telling her things. The children from the kindergarten were more demanding and more insistent in expressing their wish to see the stories in slides. Their peers from the children's home, however, were more interested in making contact with the researcher and turned more frequently to speak to her.

An indication of the urgency of a child's need for communication can be gleaned from the frequency with which he or she addresses his or her partners in communication. As far as contact with this particular adult—the researcher—was concerned, children from the two groups turned to her approximately the same number of times, yet they did so in different ways. In the kindergarten the children used looks, smiles and words

to make contact, yet in the children's home the children used their eyes and facial expressions far less and used predominantly verbal initiatives. Children from the second group might walk up and down next to the table, sometimes touching the things belonging to the researcher and saying such things: "That's an exercise book, I know... At school the pupils write in those too... A pen, a pencil..." The words the children used did not serve to express their feelings towards the adult, and they were unable to pluck up the courage to trouble the researcher with any stories of their own. The short impersonal phrases they came out with served rather meticulously to hide the young child's desire to attract the attention of the adult and invite her affection rather than to express it.

Observations were also carried out with regard to the way in which the children communicated with their peers. In the kindergarten the pre-school children made contact three times more frequently with their peers than the orphans. It was precisely with their peers that the children exchanged looks and comments during the moments of happiest animation. In the orphanage this preference for communication with another child of the same age at moments of happy excitement was not observed.

The researcher also compared the qualitative aspects of the children's contacts with their partners in the two groups, when the child turned to another person to reach a common opinion shared with that person and in order to evaluate his own personal opinion. The motives behind this interpersonal communication stem from the desire of the children to achieve mutual understanding and share their experiences with someone else. The children would tell each other about their experiences, express their opinions about the characters in the slide show and comment on the actions of those characters. Some of the children digressed from the stories shown in the slides

and began to talk to each other about events in their own lives, to share information about their plans and their dreams. Many of them also asked the researcher about her work and interests.

Yet with all the children involved in the experiments it was the interpersonal contacts that predominated, contacts that were triggered off by the slide show. The actions of the characters in the stories brought out an emotional response in the children: the colourful, exotic things they saw, the "terrible" villains, the tension in the struggle between good and evil all stirred them profoundly. At moments of maximum emotional intensity the child would turn to the adult present or to one of his peers, either looking for support, or proffering it himself, expressing an opinion or establishing the nature of someone else's. Yet the vigour of the steps taken by the children to share experience and their nature were different in the kindergarten and the children's home.

In the kindergarten the child tried to reach a common opinion with his partners in relation to the events in the story played out before him. However, in communication with the adult children would try to make their judgements match up with those of the adult, asking such questions as: "It's a nice story, isn't it?" and in communication with peers they would merely seek to compare their opinions with those of their partners: "I like rabbits. Do you?"

The children would seek not so much to share their experiences and ideas with the adult as to seek her approval, support for their emotional response to the characters in the stories and to their actions. "The magpie's nasty... Ooh, ever so nasty!" said little Anya and looked enquiringly at the researcher.

The urge to share experiences with the researcher usually only came to the surface at the "frightening" moments in the stories. The urge would then acquire the characteristics

of a search for protection: "I'm scared of snakes like that!"

What the children wanted to share with their peers more than anything else was their mood or emotional state, rather than to bring their judgements and evaluations into line with those of the other children present. At the moments of greatest excitement the kindergarten children always strove to involve the other child in their joy, persistently "wheedling" a smile, laughter or jokes out of him: they would only address themselves to the researcher in passing as it were. The children often expressed their sympathy for various characters in the stories ("Poor puppy!") or responded to worries being experienced by their peer ("Don't worry, it's not scary!").

In the children's home the behaviour of the children in similar circumstances was somewhat different. The less intense emotions and the lower level of initiative typical of such children did not lead them to aspire to sharing their emotions with the adult. None of the subjects in this group came forward with any moral evaluation of the actions carried out by characters in the stories: this in its turn meant that the children did not try to bring their judgements into line with those of the adult. The search for interpersonal contacts in the case of the children from the home found expression only in their anticipation of attention and approval from the adult which they hoped would be shown them. Interpersonal contact with peers was even less in evidence. The subjects from the children's home only turned to their friend if they wanted to inform him about what they were seeing.

These experiments demonstrated that the differences between children brought up in the family and outside the family continue in the pre-school years (3-7) as well. The findings from these experiments, however, do not enable us to establish whether this gap between the two groups grows since new aspects of the children's emotional and mental development were

being examined here which cannot be directly compared with those that were studied in children under three and in babies.

It was therefore decided that another experiment should be carried out with pre-school children similar to that carried out with younger children by Zemlyanukhina. In a second experiment, involving children aged between three and seven, aspects of communication with adults, contacts with peers and levels of curiosity were studied among children from a children's home and others who were brought up by their parents but who visited a kindergarten during the day-time. The pre-school children were placed in all those situations used previously for younger children. The differences between the two groups of children aged from three to seven were in many respects similar to those observed in the younger children. However, it is most important to point out that the groups definitely appeared to be coming closer together when pre-school children were being studied. At the age of three the gap had been wide, but by seven the blatant differences, which had been conspicuous even at the first casual glance, were fading and by the pre-school stage only the most thorough analysis could reveal that the orphans from the children's home lagged slightly behind the children from the kindergarten. The gap had closed most noticeably in respect of the children's curiosity, and the largest difference still to be observed was in communication with peers. As for communication with adults, the pre-school children from the home, as they grew older, sought attention from adults more and more, began to set ever greater store by opportunities to enjoy their company, and their attachment to the staff at the home and to the researcher, who visited the group, became increasingly deep and warm.

It is important to draw special attention to this last circumstance. It is important when we consider the following question:

Is There a Difference Between an Institutionalised Child and One Living in an Institution?

The answer to this question is a definite *Yes*. The crucial difference is to be found in the mental and emotional state of the children.

The typical institutionalised child shuts himself off from the outside world, is self-absorbed and drives away—both in the psychological sense and sometimes even physically—other people, both adults and peers. It is very difficult to make contact with such children, they do not set store by the opinions which other people hold of them, and often do not even know what those opinions are.

At the other end of the scale we have those children growing up in a family surrounded by their parents' loving care: they are constantly being drawn to other people, they have the urge to be in other people's company, to share emotions and ideas, to think and feel in accord with the people they love and hold in respect. These children are the complete opposite, so to speak, of the children who have been institutionalised; they represent complete opposites when it comes to their relationship with other people around them. The fact that the children from this second category attend crèches and kindergartens during the day-time does not in the least affect their sociability: they remain communicative and easy to relate to.

What though of children who have been brought up outside a family in closed children's institutions? They are radically different from the youngsters classified as "institutionalised", of this there is no doubt. First of all they show an interest in other people, in the world around them and this is the most encouraging and cheering thing to be observed about these children. They feel a need for communication with people around them and this need provides the basis for fostering their innate

capacities and enabling them to make rapid progress. Moreover they also show an interest in toys and are constantly looking for something to do. Children looked after in child-care institutions learn to move independently at a relatively early age and develop the capacity for small deft movements at the appropriate stage. Soon after a year they can manage a spoon competently and after the age of two they begin to dress on their own, while the most alert of their number begin to help their friends dress themselves. All the above points make it impossible, as we see it, to refer to the children living in closed child-care establishments as being "partly institutionalised", although of course there are qualitative differences between children brought up in a family and those brought up within an "institution", i.e. a closed child-care establishment in which the children live all the time.

In our research comparisons were made between the mental and emotional state of children growing up in child-care establishments of the closed type and those attending day-time child-care establishments but being brought up by their families. It was established that the mental and emotional development of a child growing up without parents proceeds in less favourable conditions. The facts however require more detailed analysis.

The main conclusion arrived at was that the overall progress of children growing up in families and outside the family was comparable. The child growing up in an "institution" does not go off at a tangent from the smooth path of normal development: he moves in the same direction as his peers who have families. He masters movements, speech skills, learns to use first pot and then lavatory, plays with his friends, takes an interest in what is going on around him, learns to respect adults, makes determined efforts to be with them, and sets store by attention and affection shown him by adults. The overall

behaviour patterns of children from children's homes were quite different from those found in "institutionalised" children, who were like chrysalises which have yet to open to reveal a person, or buds whose petals have not yet unfurled.

Moreover, detailed observations have made it possible to establish that in some, most significant respects, children brought up in children's homes usually overtake their peers who grown up with their families. In the first place they achieve particular success in motility. These babies and toddlers learn to grasp objects, crawl, walk in an upright position and go up and down stairs a month or two ahead of the norm found among children growing up in family conditions. In child-care "institutions" children are more independent, less dependent on adults in their choice of occupations and activities, and when moving on from one activity to another.

It can thus be concluded that living conditions and, most important of all, the child care provided in closed child-care establishments, are in the main such as to foster a child's mental and emotional development. They enable him at the appropriate stage to start school and study there side by side with other children. Nor should it be forgotten that children first come to such homes in the wake of many different, serious misfortunes, more often than not after their mother has fallen ill or died, or after other members of the family have fallen victim to some chronic disease, or when it is impossible for close relatives to devote the necessary time for looking after the child. If it were not for the broad network of these child-care establishments, then prospects for such babies and young children might be very bleak indeed.

Another fact established in the course of our research demands special attention: all the children brought up in closed child-care establishments develop a need for communicating with adults on a par with that found among children growing

up in families. This constitutes the basis for the emergence and development of all their other potentialities. In all two-month-old babies we observed the "animation complex". At an early age babies in children's homes would abandon what they were doing when an adult appeared and each of them in his own particular way would try to attract the adult's attention. Pre-school children living in children's homes would compete amongst each other for the right to take part in an experiment being carried out by a new adult: on the way to the laboratory or later, in the room where the experiment was being carried out, they would look out for opportunities to get nearer to the adult concerned and linger near him or her for as long as possible. The eyes of the children when turned to the adult shone with affection, fanned by the kindness shown them by the adult. It would be difficult to exaggerate the importance of the children's interest in adults and liking for them: if these children do feel a need for communication, those responsible for looking after them can quickly establish contact with the children and lead them forward.

Yet, against this generally favourable background for the development of children living in closed child-care establishments we also came across consistent—definitely not accidental—signs that these children were lagging behind their peers growing up in families. Their emotions seemed less powerful, the outward expression of their emotions was relatively colourless, their emotions tended to be of the stereotyped, "standardised" variety, there was absence of the most graphic manifestations of emotion in either the positive or negative range. All in all this constituted an important area in which things needed to be put right. The relative lack of initiative, the slow emergence of co-operation with adults or peers, the failure to bring into line plans, opinions, evaluations with those of other people and an inadequate enthusiasm for finding common ground with people in

the child's immediate environment together make up the second problem area. A third separate area requiring detailed investigation is the inadequate curiosity found among children living in child-care establishments: their interest is not immediately aroused by anything new, they explore new objects only superficially, they soon merely bore the child, who then refuses to investigate the object any further. Nor does new knowledge give rise automatically to joy, but instead might be accompanied by timidity and fear, which in their turn would make it more difficult for a small child to grasp the essence of the novelty confronting him.

This problem areas in the mental and emotional development of children cared for in closed establishments can be directly linked to the specific style of communication between adults and small children in child-care "institutions". The staffs working in child-care establishments have been trained in education science and have learnt the basic principles of medical care for children and the rules of hygiene that should be adhered to in their work. Nevertheless the style of the relationship between the adult staff and the small children cannot be the same as in the family. It is impossible for members of an adult staff to behave as they would with their own child, when working with a group of ten babies or between fifteen and twenty toddlers or pre-school children. The staff caring for these children seek to avoid extreme manifestations of emotion and keep up a tone that is gentle and well-meaning. Often those in charge call for the attention of their whole group of charges and give them clearly defined instructions, so the children soon learn to await such instructions. The large number of children per group makes it impossible for members of staff to respond sufficiently often and promptly to the suggestions put forward by each child, or to encourage and support the most interesting of the child's intentions. So the situation arises in which chil-

dren come to grips with small problems virtually unaided, and they become used not only to a certain degree of independence but also to isolation—they find it hard to co-operate with people around them on an equal, bilateral basis.

It would be astonishing if the specific conditions of life experienced by children living in closed child-care establishments did not lead to specific differences between their development and that found among children growing up in families. Being brought up in an institution does *not* prevent a child from making progress. If young children lag behind their peers in certain respects, the gaps are such that they can be quickly closed.

Taken overall, the findings obtained in experiments aimed at comparing the mental and emotional development of children inside and outside the family, provide a cogent argument serving to confirm the decisive role of communication (both as regards its frequency and quality) in a child's overall mental and emotional development. They bear witness to the need to improve child care both in the family and in public establishments, and also to examine the scientific basis underlying education and upbringing.

The Effect of Purposeful Organisation of Communication with Adults upon the Mental and Emotional Development of Young Children

In the light of the above we may conclude that total isolation of children from adults clearly prevents them from turning into normal human beings and leaves them at a sub-human level of development. "Communication deficiency"—this shortcoming to be found in child care—gives rise, in its most blatant forms,

to the emergence of the "institutionalised" child and also has a dramatic impact on the child's mental and emotional development, reducing his resistance to disease, slowing down his mental and emotional growth, and holding him back at various stages of his or her development in the early years. Well-organised child care in public establishments, even when a child has no contact at all with any adult close relatives, and living outside a family atmosphere do not prevent a child from developing his mental and emotional capacities to the full. Against this background of generally favourable conditions for these children's development, the shortcomings of life within an institution do however make themselves felt—a lack of initiative and difficulties experienced in expressing emotions, together with reduced curiosity with regard to the outside world, all of them amounting to the syndrome to be found in "institutionalised" children.

It should be admitted at the same time that the findings used to demonstrate the role of communication in child development appear, despite their striking eloquence, nevertheless to lack a certain amount of conviction. All the evidence presented above is drawn from profoundly negative circumstances. They are not created deliberately and no one is going deliberately to reproduce them in the name of science.

In each case that has so far been recored of children's isolation from society a whole range of conditions have come into play whose relative significance is impossible to check. "Mowgli-children" are encountered extremely rarely and it is difficult to establish whether they were perfectly healthy before they came to live among animals and whether they suffered physical or psychological traumas while among animals. Wayne Dennis who attempted to bring up babies in strict isolation from the outside world, in actual fact created an environment for the twin girls that was definitely favourable. Yet nowadays it is

highly unlikely that anyone could bring himself to repeat such an experiment because of the potential risks involved for the babies. Yet if the situation cannot be reproduced then the scientific validity of this experiment is severely reduced. Children who end up in closed child-care establishments very often, prior to that, have had lives plagued by aggravating circumstances: their mother may have fallen ill during pregnancy, the pregnancy may have been unwanted, or the mother might even have tried to terminate the pregnancy, or the child have suffered some kind of trauma during birth.

At the present time it is already common knowledge that a mother's state of health, her moods, her emotional attachment to the child she is bearing, together represent a real force that affects the development of the foetus and the condition of the baby during the initial period after birth. This means that orphans' lack of a mother and their inadequate opportunities for communication with adults merely add to a list of already existing negative circumstances, the impact of which is known to be considerable.

This is why particular attention is being paid here to a group of positive factors, which serve to demonstrate the role that communication can play in a child's development, not when communication is lacking or inadequate, but in circumstances where communication is deliberately made part of a child's life and where attempts are made to single out the advance a child is able to make thanks to his opportunities for communication.

Lev Vygotsky introduced into child psychology the concept of the *experimental-formative* method. It was used not merely to denote the study of a child's mental and emotional potential in specially designed conditions provided to further his or her development. In the course of preliminary observations and experiments in an ordinary everyday environment, the psychologist using this method in his work first establishes those factors

which he thinks underlie the emergence of the capacity or skill being studied. Then he selects children who have onlly reached a low level of development and have under-developed skills, and proceeds to create circumstances incorporating the necessary factor which will have an impact on the child. If the children's level of achievement rises after this, if they acquire a skill they lacked earlier, the scientists concerned obtain a graphic confirmation of their thesis, the most convincing possible. It then becomes obvious that their theory with regard to the ways, in which mental and emotional capacities are developed, was correct. The experimental-formative method not only possesses outstanding theoretical merits but is also extremely valuable in connection with the practical tasks involved in child care. A scientific experiment can provide the basis for the elaboration of new and more effective means of influencing a child both in the family and in various child-care establishments.

Child psychologists in the USSR make wide use of several variants of the experimental-formative method: experiments carried out for teaching purposes, experiments to promote the development of the individual child, various types of special activities designed to facilitate the identification of the nature of mental and emotional development and the mechanisms underlying it. This method is of course most valuable in another field as well, namely, in the study of the role of a child's communication with the people around him for his mental and emotional development overall and also in specific spheres of life.

The main, and probably the most vivid, positive effect of communication is its potential for accelerating a child's development. The establishment of interesting links with adults allows children to overcome the unfavourable aspects of the situation in which they happen to find themselves, inside closed child-care establishments for example. Such communication makes it possible to put right handicaps that have emerged in

children who have not received proper care, and to scale new heights in many different spheres of a child's mental and emotional life.

Sometimes opinions are expressed to the effect that we are exaggerating the role of communication, while trying to prove a situation that a young child, being like malleable wax or soft clay, obediently assumes the shape dictated by an adult. This is not the case, however; we are of the opinion that no matter how much adults might try and instil into a child or explain what they are after to him, he will take in only what he grasps through his own activity, and the degree to which he does so will depend upon the degree to which he was active. He will not be able to resolve an excessively difficult problem, and as a result he will not be able to take in the ideas underlying it, however much he might be pushed towards doing so. When faced with an easier task a child might be able to master only part of it, and only this new small advance will be added to the child's overall experience. This means that, when we are working with children, it is essential carefully to take into account the level of development a child has already reached at the moment, and to have a clear idea of what he might have in reserve in the short term. He should be set problems that demand effort from him, but which at the same time are within his power to resolve, within the framework of his immediate life experience. It is, of course, also essential to bear in mind the child's age-group and his innate individual abilities.

If a child is always being set tasks by the person responsible for his welfare, is the latter not running the risk of making him too dependent? Is not the child likely as a result to develop the habit of waiting for instructions from an adult, to be told what to do and what to work at? Research findings point in fact to the exact opposite. If a child cannot enjoy the support of a strong, kind adult, then he becomes excessively wary, even

cowardly. He will tend to wait to see what is going to happen, hesitate or immediately adopt a passive position in situations where children nurtured by caring adults will embark upon daring voyages of discovery. Findings that reflect a falling off of curiosity in children who have not enjoyed sufficient communication with adults, bear out the fact that initiative only becomes a characteristic trait of the emergent personality in those cases where it is justified and is stimulated by protective support from adults. It should be remembered that initiative is a highly valuable characteristic because an active approach to life provides the foundation for the individual's struggle to uphold his ideals and it helps him to ensure the triumph of his aspirations. Otherwise the noblest of his intentions will remain mere castles in the air and will be of no benefit either to him or to mankind.

Constant communication with adults naturally places a child in a position where he is made to a definite extent dependent upon them; when he comes to act, it forces him to refer to people that have become authorities for him, at least indirectly. Close bonds of respect, love and friendly affection set the individual free from a state of isolation, prevent him from feeling shut off in a world of his own. What is bad about that after all? None of us can be independent of the rest of mankind. A child must learn at an early stage about the links between him and the millions of other people in other parts of the globe. To this end he of course needs some independence, and here lies the paradox, since a child can only acquire independence through his interaction with adults.

Care, love and protection from adults are of course all essential, but perhaps they can at times become excessive? If we interpret love in the broader sense, as not just tenderness, but as a demanding tenderness, as a constant readiness to persuade and explain, to share experience and knowledge, then love can never be excessive. Love of this kind is an inseparable part of

showing respect for young children and of the endeavour to achieve mutual understanding with them. There is no denying the fact that this involves considerable emotional input: but it is all for the sake of a child we love and in his interests! Such effort is rewarded with precious moments of pride in one's child, happiness at his achievements, satisfaction gleaned from the results of one's work. Not everyone is capable of giving their child this kind of love. Many simply do not realise what it involves, perhaps because they have never experienced this kind of love themselves as children. Others are intimidated by the extent of the emotional effort this demands from them: being constantly ready to respond to a child's appeal and always remembering to encourage him to share his joys and sadness. It is of course so much easier just to buy another toy, to shower children with knick-knacks or the latest electronic gadget. Parents may be spending a good deal of money, but at the same time they are being very sparing with mental effort or their emotional resources.

Does not the first kind of generosity represent excessive love towards a child? No! Rather an attempt to substitute spending money for spending emotional energy: a child will probably accept such a subsitute but is more likely than not to feel cheated. From this will then stem discontent, tantrums, "ingratitude".

So-called "excessive love" of this kind, involving spoiling, large quantities of presents, indulging of a child's every whim, is an inadequate kind of love, and what is most important of all, it is the *wrong* kind. Loving a child requires infinite skill. To this end the most important thing is to understand the nature of the most indispensable of all human needs at each stage of childhood—the need for communication—and to build up our relationships with children in such a way as to satisfy that all-important need.

Chapter II

THE DEVELOPMENT OF CHILDREN'S COMMUNICATION WITH ADULTS

Before we talk of the development of any mental or emotional capacity it is essential to specify what we understand by the process of development. According to one point of view, in the course of life the changes that take place are predominantly quantitative—new knowledge, abilities and skills are accumulated, and the range of techniques and modes of action that a human being masters widens. Viewed in this way, development means little more than growth, increase, diversification. Child psychologists in the Soviet Union, in accordance with the laws of materialist dialectics, see development as a process in which quantitative changes of necessity lead up to fundamental qualitative changes.

Starting out from this interpretation of the essence of development, we reached the conclusion that the development of children's communication with adults lies in the sequence of a number of qualitatively distinct stages of activity. *Communicative activity at a specific stage of development, viewed as an integral set of characteristics that constitute a typical variant of such activity for a particular age-group, was referred to as a form of communication.* We characterise below each form of communication in accordance with five parameters. Firstly, there is the stage in *time* at which each form of communication emerges during the life of a child before he enters school. It is difficult to plot these stages in time with real precision; there

can be fluctuations of anything between a week and several months that depend upon the individual traits of the child, the conditions in which he is living and the way in which he is being cared for.

The second important characteristic of a form of communication is *place,* which the communication occupies within the broader framework of the child's activities as a whole. Sometimes communication is a child's dominant activity, the centre around which are grouped other forms of children's activity. All too often, however, it is confined to a peripheral role and has a more modest part to play as back-up for other, non-communicative types of activity.

The third characteristic used to qualify communication is referred to as *basic need content* which should be satisfied by the children in the course of their communicative interaction. A communicative need was discussed in the previous chapter and its essential nature was outlined, that of man's urge to acquire self-knowledge and to evaluate himself through the knowledge and assessment of other people, and with their help. The need for communication is a specific one: it cannot be replaced by any other needs. All these facets of the need for communication are intrinsic to it from the moment it first emerges until death. However, this need does not remain constant after the moment it first appears: it is evolving all the time. Throughout the individual's life his need for communication is being transformed and modified. As the child reaches each new age-group his need for communication acquires new emphasis: he attempts to discover within himself and others whatever is of particular importance for him at that given point in time, the things that have led him to turn to the people around him. What a child is seeking to explore and discover at a particular stage in time constitutes the content of his communicative activity.

The fourth characteristic of a form of communication is pro-

vided by the *dominant motives* that prompt a child at a specific stage of development to communicate with other people around him. This characteristic of the form of communication can be seen as the fundamental one; it determines the capacity in which the child's partner in communication appears for him and which the child at the same time identifies within himself when he is interacting with the people around him. The content of a child's communicative need and his motives for communication are inextricably linked with each other: according to the theory of activity put forward by Leontiev, a need acquires shape, becomes tangible in a motive.

The fifth characteristic typifying each form of communication is to be found in the *means of communication*: with their help children at their particular stage of development engage in communication with other people.

Taken together, these five characteristics constitute a single whole providing an overall picture of a specific *form of communication.* The research carried out by staff from our department has made it possible to single out educative forms of communication with adults, which are engaged in by children between birth and the age of seven.

The Pre-history of Communication (The Neo-natal stage)

Leading up to any period of history we find a stage at which the processes, that later come to constitute the essence of its progress, are beginning to take shape for the first time. Where does communication begin? The starting point for this research was taken as the moment at which an independent communicative need first emerges. If we are confronted by a specific need for communication, this means that there must already exist

some kind of communication, i. e. activity directed towards the satisfaction of that need. If such a need has not yet taken shape, then it means that communication as such has not yet taken place, and has still to emerge.

Reflection on the nature of communication and on the essence of this type of human interaction led us to identify four indicators that testify to the fact that a communicative need exists. The *first* is attention, or interest being shown in another person. Even the smallest of babies, who has already come to feel a need for communication, studies other people closely, listening to the sounds of their voices and often attempting to touch them or draw nearer to them. The *second* indicator is provided by an emotional response to another person: children show delight at that person's appearance, enjoy following his or her actions, and become sad when he or she leaves, or they might even grow angry. The *third* is specific behaviour on the part of a child by means of which he tries to attract the interest and attention of other people. The *fourth* is the child's attempt to arouse emotions in another person, a response to what he himself is doing.

A need for communication that has taken shape manifests itself in all four of these indicators of communicative need: it is essential that they all should be present at one and the same time in one child. Any indicator of a communicative need, taken on its own, is not enough to enable us to decide whether or not a particular child definitely feels a communicative need.

Next it is important to draw attention to the perfectly logical way in which the first and third indicators, as well as the second and fourth, present mirror images of each other. There is no denying that in communication both parties are active and each of them pays attention to the other (first and second indicators) one minute and brings his influence to bear on the

other party the next (third and fourth indicators). We can only talk of communication as such in those cases where there is a mutual link between the two sides involved. Thus, a child feeling a need for communication willingly engages in interaction with the people around him; he pays careful attention to them, responds in an alert way to their actions and constantly tries to attract their attention and find out how they relate to him and how they assess his actions. The four indicators of a need for communication, identified and described above, provide a reliable basis for judgements as to whether a child has definitely developed a communicative need, and if not, then as to the degree to which such a need has already begun to take shape.

Then we are faced by another and very difficult question: what are the sources of a child's need for communication, where does it spring from? Is it something inborn? Perhaps it is a need men share with animals? Or is this need to communicate something which gradually takes shape during a man's life, and is its emergence something that requires definite conditions peculiar to human existence, which are not to be found within the context of animals' lives?

Many psychologists tend to hold the view that man's need to communicate is something he is born with. They describe this need as something close to needs which can be observed in the behaviour of some animals: for example, they might compare human altruism with that found among ants—identical in that it involves placing the needs of other members of the group before the individual's strictly personal and selfish interests. Comparisons are also often drawn between a woman's maternal feelings and those of a mother bird, trying to lead the huntsman away from the nest containing her young by attracting his attention to herself.

Yet far more scientists bring out the fundamental difference between man's communicative need and aspects of animal be-

haviour which might at first glance appear similar. It is indeed true that animals know only of the existence of a few individual members of their own particular species, with whom they come into direct contact in the course of their lives. As individuals, they learn to adapt to the conditions of their existence by means of trial and error and the experience of their species is handed down to them from earlier generations in a biologically fixed form. A wolf who has grown up among people remains a wolf and the characteristics of his behaviour that can be attributed to the new circumstances of his existence remain only of secondary importance. The time comes sooner or later when instincts will gain the upper hand. This is demonstrated by the tragedies which have resulted in cases when efforts have been made to tame wild animals. In nature, many thousands of years are required for animals to evolve biologically, to become domesticated and tame.

A child, as opposed to animals, learns at an early stage not only that other individual members of his species exist but also about mankind as a whole. He arrives in a world, which to a large extent was shaped by the efforts of earlier generations, in order to carry on the task, which was embarked upon long before he was born. Instead of needing to adapt to his immediate environment we can observe, in children, the intelligent mastering of the rich heritage of his fathers and his active assimilation of that heritage under the guidance of adults. It was pointed out earlier that the most important thing a human child comes to master are his higher-order cognitive functions: the ability deliberately and intelligently to take in the world, to control his behaviour intelligently, to grasp via thinking the concealed essence of phenomena hidden from emotional perception, to express in oral and written speech the results of his tireless efforts to explore his world and to elaborate in his imagination new plans and projects for the future. No child en-

dowed with these higher-order cognitive functions ready-made at birth: he builds them up in the course of his life and comes to master for himself the knowledge and the skills which people before him had possessed. In the course of this process he is bound to enrich the treasure-house of human experience and later hand over to new generations his own contribution, his baton in the relay-race. This is why, when a child is wrested from a normal set of relationships with other people, he does not turn into a human being but into something little more than an animal.

The principal difference between the minds of men and those of animals comes clearly to the fore within the context of communication. Contacts between one animal and another are of an instinctive nature; the depth and the durability of those contacts are determined by biological factors and are bound up with the requirements indispensable for the survival of the species. Man's need for self-knowledge and self-assessment, on the other hand, is a matter of the heart and the mind, and his ties with people both close by and far away are social, not biological, in character. Higher forms of relations between people—kindness, humanism, patriotism, internationalism—are illuminated by knowledge, understanding, compassion and love. They do not, however, appear at birth, so that the crucial duty of the adult caring for a child is to help him discover and develop these within himself.

Psychologists' observations also demonstrate that children's need for communication is not something that appears automatically. It takes shape gradually, depending upon the conditions of their existence. The decisive role in the emergence and subsequent development of this need is that of the influences exerted on the child by the people around him, in particular adults that are close to him. As they caress a small child, talk to him, discuss his actions and assess his relationships with his play-mates,

his elders reveal for him for the first time the joy to be gleaned from recognition, the sweet comfort to be drawn from moral support, and the bitterness stemming from a reproach. After learning with the help of adults what communication can bring him, a child gradually begins deliberately to seek communication, to value and set store by it. More often than not parents build up their communication with a small child spontaneously, without thinking about it. Yet at each stage of childhood there exists an optimal form of interaction with a child that corresponds most closely to specific demands of his age. Knowledge of these forms of interaction can help parents avoid mistakes as they look after and educate their child. The time to begin caring for and educating one's child is the moment he enters the world and announces this entrance with a loud cry.

The first few weeks of a child's life constitute the neo-natal stage. A baby at this time is totally helpless. However, nature has already seen to it that he is equipped with a whole set of techniques for adapting to his new environment. These include a variety of innate reflexes: grasping, kicking with arms and legs, etc. A new-born baby makes a variety of sounds. His little face is constantly moving, his expressions are changing and he is pulling faces. However, this supply of initial techniques for adapting to life does not provide the point of departure for skills which the baby acquires subsequently. Detailed observations carried out by physiologists and psychologists led to an unexpected conclusion, namely, that innate reflexes are not perfected with time, and do not develop into mature types of movement, but on the contrary, soon disappear. Some time later there appear forms of movement which, while similar to the innate reflexes, are nevertheless genuinely new, lasting forms. Children learn, for instance, to take hold of things at the age of three or four months: to this end they have to learn to link up an object they can see with their own movement in the

course of chance contacts made by their little hand swinging chaotically to and fro, in other words, to link up their visual and tactile awareness of an object. It is not until considerably later that children master the skill of walking—towards the end of their first year of life, and the primitive kicking reflex they possess at birth is only very remotely connected with the development of locomotion. The child has a very long path before him, until he learns to speak. Often children begin by losing the capacity to utter many complex sounds that had been clearly audible in their babblings soon after birth. It is only a good deal later that they master these sounds again, gradually and with effort, and sometimes, even with the help of a speech therapist, only just before they start school at seven. There is also a world of difference between the play of new-born babies' face muscles and the mature facial expressions, which are being developed and made more subtle throughout the span of a human life, and the secrets of which are probably only known to mime artists.

From this it follows that a new-born baby can execute the instinctive movements for a short time, until the functions that he will be carrying out for the rest of his life begin to take shape which correspond to the circumstances of the child's life and meet the demands made upon him.

During the last twenty or thirty years another group of innate abilities has been defined—those enabling the new-born child to perceive movements, expressions and sounds made by adults, and react to them in an extremely sensitive way. At one time no one ever suspected that these abilities existed. There is room here only to refer to a few of the relevant findings: the Soviet physiologists A. I. Bronstein, Ye. P. Petrova and their colleagues established that very soon after birth a child takes in the timbre, volume and level of sounds and can distinguish between the sounds of a trumpet, a bell or a hooter. Researchers

would repeat one and the same sound a great number of times and the young child would grow accustomed to it, shut his eyes and suck his dummy in time with the rhythm of the repeated noises. Yet as soon as that sound was replaced with another, the baby would immediately be alerted; he would cease to suck and his eyes would start to wander as he tried to identify the new sound. The American researcher Robert Fantz used to show new-born children a variety of drawings and three-dimensional objects, fixing them in pairs over the cradle. Recording the patterns of the children's eye movements made it possible to establish that one of the objects attracted his attention more than the other. Fantz maintains that babies prefer more complicated drawings and objects, such as a chess board with its large quantity of squares, and new objects rather than old ones.

The Soviet psychologist V. P. Zinchenko repeated the experiments carried out by the French scientist René Zazzo. He tried to catch the wandering gaze of a new-born baby and when he succeeded in doing this he showed him for an instant the tip of his tongue. To his astonishment the baby, after a second's bewildered hesitation, copied the adult's action, opening his little mouth and sticking out his tongue a little way. A real sensation was caused in the world of science by the experiments carried out by William Condon, who established a new-born baby's ability as early as the first day of life to carry out movements in time with the rhythm of an adult's speech and similar to those carried out by adult observers close at hand. Moreover, only meaningful sentences with a natural speech intonation had this effect upon the child.*

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* William Condon, Louis W. Sander, "Synchrony Demonstrated Between Movements of the Neonate and Adult Speech", in *Child Development*, Chicago, Vol. 45, No. 2, 1974.

The findings listed above, and many others, testify to the considerable capacities of the new-born child. They provide a marked contrast with the traditional concept of the new-born child and what he can achieve. Earlier, it was commonly held that the new-born baby does little more than eat and sleep, absorbed in a world of his own, a world of inner sensations. He was seen as a kind of plant requiring no more than nourishment and warmth. New findings not only surprised the scientists but also seemed incomprehensible at first: why should a new-born child need such astonishing abilities, if he does not look after himself in any way and his close adult relatives take all his care on themselves?

The life of a new-born baby, however, is by no means simple. It is true that the responsibilities for that life are taken on by adults—his parents and in particular his mother. However, in order to ensure that a child's needs are satisfied fully and at the right time, he himself needs to behave in an active way. He makes his own considerable contribution towards setting in motion the interaction with his parents. Indeed, it cannot be otherwise, for it is his relationship with his parents that provides the channel for the establishment of his relationship with the world around him. For a child it is important to learn how to find out whether there is an adult near at hand, what he is doing, what mood he is in and how to convey signals to him about his own needs. These astonishing abilities, which have since been discovered in new-born children, are precisely what is required of the new-born child so that he may carry out his part of the interaction "work".

Does a new-born child feel the need to communicate with the people around him, and does he actually do so? No. Nothing in his behaviour gives us grounds for assuming so. If we apply as a criterion the four indicators of the need for communication that were outlined earlier in this chapter, this will

be clear. The first indicator is attention paid to other people. This is not to be found in a new-born child: a baby's wandering gaze is not looking out for anyone in particular. Even if a baby's eyes by chance alight on his mother's face, they usually do not linger but glide on. The second indicator, that of manifestations of emotion, is not present either. A child does not derive pleasure from the appearance of his parents and does not come over sad when they go away from him, and it goes without saying that a new-born baby does not make any attempt actively to attract an adult's attention (third indicator) or to establish the nature of anyone's relationship to him, or to earn approval (fourth indicator).

This lack of communication does not, however, mean that the new-born baby should be left to his own devices and merely be kept clean and fed. Not in the slightest! The first month is a stage in his life when the mystery of the baby's preparation for his entrance into the world of men is taking place. During it a whole series of events takes place that are of crucial importance for the whole of a child's subsequent development; the central figure at this stage is the adult, that very same person close to the child, who is looking after him. If the adult concerned confines himself, or herself, to feeding the child and changing his nappies, then the child will come to a standstill at that initial stage of his development and will be totally alienated from all that is happening around him. That is precisely what happens in the most severe cases of "institutionalised" children referred to earlier.

Yet these tragedies do not occur if the adult carries out his time-honoured duty towards the baby. In the first place, he will build up a communicative atmosphere around the child. Secondly, he will set up a system of signals between himself and the child. Thirdly, he will be constantly modifying the child's behaviour, emphasising and consolidating certain actions, and

holding back, playing down others. All three of these lines of activity on the part of the adult are closely interwoven, and any separation of the one from the others is a rather artificial process. Nevertheless, efforts were made to do this, in order to obtain a clearer idea of the way in which a new-born baby makes its first contacts with the people around him. In this work, we started out from observation of the behaviour of a loving and affectionate mother. However inexperienced she might be, it turns out that the concentration of all her emotional, physical and mental energy on her offspring helps her to light upon the means essential for furthering his development.

Firstly, we were able to observe how such a mother *builds up a communicative atmosphere around the baby.* She, or any adult taking her place, treats the child as a totally reasonable being. She is always talking to him, telling him about what she has been doing, explaining what she is doing or tenderly praising the new-born baby for "being good", for "helping her" or simply enthusing about how uniquely beautiful the child is. An adult will sometimes grow angry at the baby for not eating very much, for belching too often or for whining. The outside observer, while listening to all this, might well think that the new-born baby performs his simple deeds deliberately, fully aware of what he is doing! Adults of course do not really think that. Yet, through their behaviour, they create an atmosphere of communication, willingly taking on themselves both roles, their own and that of the new-born baby, although the latter does not really represent any sort of partner in this communication. This is the case only at the very beginning: the constant input from the mother, her tireless work at communication sooner or later draw the new-born baby into its orbit. He becomes used to her warm words, he starts to enjoy her verbal caresses and her friendliness, particularly because these are supplemented

with supportive and reassuring physical contact. It is in this way that the actual existence of a special kind of relationship between people, in which he plays a central role, is first discovered by the young baby.

In addition to all this, the mother also sets up a *practical system of signals* with the new-born baby. For a long time she watches the movements and sounds made by her baby. Anyone who has watched a new-born baby for a few minutes at a stretch, even if it be only once, will without doubt have noticed that his muscles are constantly in motion: one moment his hand will give a shudder, the next his little fingers will clench together and then his right leg will bend and then straighten out again immediately afterwards, or perhaps a shadow might seem to pass over the child's face, or all of a sudden his whole body might start moving... The adults looking after small children respond with actions of their own to many of these movements. A mother will pick out from the chaos of these incoherent muscular contractions a "message" addressed by the child to her and will respond to each such "discovery" in an appropriate way: "Don't frown now!" she will say and will then proceed to straighten out the bed-clothes in the cradle.

"I'm just coming!" is a typical response from a mother to the cries of her new-born baby, when she thinks he is hungry and needs to be fed. In most cases a child is not sending any signals to the people around him. However, frequent combinations of movements on the baby's part and responses on the mother's part will eventually lead to the establishment of a real communicative link between them. A child gradually comes to express certain of his needs in different ways and a mother learns to differentiate between his expressions of those various needs. She will be able to tell from the sound of his voice, or from the tone of his whimpering, whether the baby is hungry, wants to go to sleep or whether, during a cold, he is

suffering from an inflamed ear. The closer a mother observes her new-born child the more frequently she tries to understand his appeals and the sooner she tries to respond to them, the sooner the signals system between them will be established and the more precise and durable it will prove to be.

This initial signalling between baby and adult is unique. Its main distinctive characteristic is the disproportional relationship between the two participants. The loving mother cherishes her baby, investing all her good will, her emotions and mental alertness in this union with her child. The new-born baby on the other hand appears not even to know of his mother's existence. His cries and facial expressions are not directed at anyone in particular. They come to represent signals only because the mother is going out of her way to understand them. The establishment of this link is a very important course of development for the new-born baby, which prepares him for real communication with people around him later on.

A mother also *modifies the child's spontaneous behaviour.* Amidst the mass of his chaotic movements lacking any meaning, she astutely picks out specific movements which accompany manifestations of particular joy and satisfaction. Adults usually attach most importance of all to a child's gaze and his smile.

The gaze of a new-born child usually wanders from one of the objects close to him to another, not dwelling on anything for long (the only thing that attracts the attention of all babies is light). As a mother bends over her child's cradle, his gaze passes across her face. The mother is happy: for a short moment, the eyes of the small person and the grown person have met and it appears, to her, that a sparkle has come into the child's eyes, that his face has begun to light up. The mother tries to lengthen that moment of contact. She perseveres in trying to catch the gaze of the new-born baby, tries to hold that gaze directed towards her and, to that end, moves in the

direction in which the child's gaze glides. In order to help him, she may either lean over towards the baby, or move slightly over to one side. Gradually she succeeds in grasping at what distance the child can see her best. Our findings have shown that during the first weeks of life the new-born baby is particularly sensitive to touch. When stroking his chest or tummy, or squeezing his toes and fingers one by one, the adult makes the child stop for a moment and concentrate. He creases his eyes or fixes them in one direction. At such a moment, if a child is called softly by name, or a few affectionate words are addressed to him, his eyes will begin to move and will then alight on the adult addressing him.

Scientists have established that it is easiest of all for a baby to pick out the face of his mother when she takes him on her lap, holding him gently in her arms in a position as if she was about to feed him at her breast. This pose they refer to as the "breast position" and have established that it is the one best suited for encouraging these early contacts between the new-born baby and adult. The child can thus feel his mother's soft, warm body, the reassuring support of her arms and he soon learns that it is precisely when he is being held in this position that his hunger is satisfied. All this helps the baby to concentrate. The mother's voice, as she speaks to the child, also makes it likelier that his gaze will alight on her face. A particularly propitious time for establishing these first contacts is immediately after the child's feed. Prior to that, while still hungry, the child has been greedily sucking with his lids shut and soon after the feed he dozes off. A few moments between the satisfaction of his hunger and his falling asleep is the time when it is easiest of all for an adult to catch the gaze of a new-born baby and get it to dwell on him or her.

However, it is a baby's smile which, in the first month of life—and later as well for that matter—brings a mother the

most profound joy. Among the first faces which a new-born baby pulls are a good number which are reminiscent of a smile. A mother is prepared to welcome these as well. Yet, in her heart of hearts, she knows that these early "smiles" are not genuine ones. At the times when he is "smiling" the baby often has his eyes closed or he is looking over to the side. His lips are hardly open and the expression only lasts for a fraction of a second and can give way immediately to a frown or a yawn. Psychologists refer to these as "physiological" or "gastric" smiles, thus stressing the fact that there is no awareness behind them and that they have no psychological implications such as greeting, affection or an appeal for attention. Yet even so a mother is grateful to her baby, albeit for such pseudo-smiles and encourages them as generously and willingly as she does the first signs of her child's attention. She claps her hands, gives out gasps of pleasure and a rapturous shine comes into her eyes. This reaction on the part of the mother serves to give support to the child's smile, to lengthen it and helps the child to notice certain aspects of the broad smile from the adult in response to his own, to grasp part of this interaction and on the next occasion perhaps even reproduce it.

Psychologists are unable to identify the exact stage at which a baby produces his first real smile. Indeed, it would appear there is no such precise stage, given that the differences between the capacities of individual children in this respect are very great, as are those between parents' capacities for smiling and all manner of subsidiary factors. Members of our research team carried out observations of babies who were brought to children's homes at between ten and twelve days after birth. We ourselves witnessed the first signs of friendliness in their faces and happily responded to these. In the records kept regarding these children, the approximate time when a smile first appeared was the end of the third week, on about their twenty-

first day of life. However, there are clearly visible smiles to be recorded as early as the second week after birth: or, on the other hand, there may be a delay, and one may have to wait until the end of the first month. Generally speaking, a genuine smile first appears at the end of the neo-natal stage and marks the end of that stage.

There is no mistaking a real smile: when he smiles a baby looks into the adult's face, his eyes shine, the corners of his mouth are stretched wide and curving upwards. There is no doubt that he is happy to see the adult and is conveying to him his pleasure. A smile—while a pleasant event in itself—is, or so it might seem, a simple, ordinary event. Yet that is only how it appears at first glance. In actual fact the evolution of the smile, its nature and functions are full of secrets which still await a solution. A good number of psychologists have come forward with highly contradictory ideas regarding the origins of the smile and so far only the very first steps have been taken to lift the veil of mystery that shrouds it.

An ill-informed person will ask: where is the secret in a smile? A child smiles because he feels good. Surely that is clear? In the first few days he did not know how to smile, then he learnt how—and that's all there is to it! However, if we think more carefully about the facts, we will soon grasp that there is no clear and undeniable link between a smile and pleasure. Do we smile when we have enjoyed a tasty midday meal? Not necessarily, although we experience pleasant sensations. Are we bound to smile when we listen to beautiful uplifting music that fills us with a profound sense of delight? Again the answer is No. Even adults do not necessarily express their joy or pleasure through smiles. On the other hand, they may give a broad smile when they encounter a slight acquaintance by chance, although they do not experience any particular pleasure when doing so.

Let us return, however, to the new-born baby. Observations demonstrate that, in the period straight after birth, a satisfied appetite and warm dry clothes do not arouse any smile in a baby: once satisfied, he falls asleep. Why then, at some time during the third week, does he suddenly begin to smile? After all, why does a baby need to smile at all? This, too, is not really clear. There is no denying the point behind a baby's loud cry, for these sounds attract the attention of adults, who then come over, remove the cause of the trouble and comfort the baby. Yet the smile appears *after* the child has been satisfied. It would therefore appear that the smile does not possess any biological significance but is an "after-thought", so to speak.

In their efforts to reach the heart of the matter many psychologists attempted to identify the factors which make a child smile. They drew up long lists of sounds, visible objects and touches, and observed which of these more frequently made a child smile and called forth the brightest, the widest smile. The findings presented in the various works on this subject revealed wide differences between the various points of view put forward. The individual characteristics of the children investigated were reflected in the findings (one used to smile at tuneful noises, another at a shining, brightly coloured toy), as was the manner in which the objects were presented to the child (the quick sudden appearance of an object causes more pleasure in most children than its gradual coming into view).

So if a smile cannot be directly linked with pleasure, what then gives rise to it? Some psychologists are inclined to link smiles with the happiness children derive from new impressions. Our research team embarked on a detailed project aimed at checking out this theory, and a large number of experiments were carried out. We came to the conclusion that a new pleasant impression makes a child first transfixed as it were: he be-

comes "all ears" (if the object concerned is a toy that makes a noise) or "all eyes", and finally he grows excited, which is reflected in the way he begins to move his limbs, his small body tenses and he turns his head to and fro on the pillow. Yet of a smile... there is no sign! The babies under investigation were shown one and the same rattle many times, they were allowed to play with it and then later they were shown the same rattle again, but this time together with some new articles. To everyone's surprise, at this stage the babies really did start to smile—at their old friend the rattle! This led us to conclude that it was not the novelty of the most beautiful of the toys but the familiarity of the old one, and the memories of toys and games it brought back that compelled the baby to smile when he saw this object.

Yet the overwhelming majority of researchers maintain that the most effective stimulus for a smile is not an object at all, and that children smile more often, more quickly and more broadly at an adult. The sight and voice of his mother are the impressions which first call forth a new-born baby's smile. The babies' smiles arise as a kind of reflection of someone else's smile. Only after another week or ten days can we observe that a baby smiles even before he sees the adult, when he merely senses the adult's approach. It would therefore seem appropriate to conclude that the smile does not merely express the emotion of pleasure experienced by the child "on his own", but is rather a means of *communicating* his pleasure to someone he feels close to.

This interpretation would also shed light on the biological purpose of the smile, its vital function. A smile can be seen as providing an instrument for establishing interaction between the baby and the people around him. It enables a child to send a message to the adult looking after him, to signal his pleasant experience to that person. Cries from the child also enable him

to convey a signal to adults, but when crying he is not actually turning to them: he is totally bound up in his own unpleasant sensations. The profound difference between a cry and a smile lies in the fact that a smile is addressed at a particular person, a particular adult, and is not merely the accompaniment of some inner emotion. Furthermore—and this is extremely important—a smile is not linked to a primitive physical state, but to a completely new kind of pleasure of a non-physical nature stemming from interpersonal contact with another being, who is capable of perceiving and assessing the child's happiness and who is ready to share that happiness and present to him in return his own happiness.

A new-born baby is not capable of communicating with the people around him. Yet in the first month of life he gradually emerges from his state of self-absorption and also appears to discover the existence of other beings around him. Many psychologists even maintain that a baby at this stage does not yet see them as something separate from himself. In his day Vygotsky wrote that the new-born baby still fuses himself and his adult relative into a single whole, referred to as "pre-us": "us" because "I" and "You" are not yet separate, and "pre" because "us" is not a mature, established entity but something that is easily broken down into its component parts, something temporary that precedes "us", a formation that is little more than a rough sketch or an overture.

Ought adults to help the new-born baby in his emotional and mental development? Should they as early as this be guiding him or should they wait till he is a little older? It cannot be stressed enough that *a child needs guidance and education from the moment his mother first picks him up.*

The main purpose of this education at this stage should be to help the child to learn to pick out the adult caring for him and to smile at that person.

Correct care and education for a new-born baby serve to prepare the child for embarking on his subsequent communication with the adults in his immediate environment.

The Situational-Interpersonal Form of Communication (1-6 months)

This form of communication emerges at about the age of two months and only lasts for a very short time, until the end of a child's first half-year. It starts to take shape during the baby's second month and comes into its own between the ages of two and a half months and four and a half months. After the age of five months this situational-interpersonal form of communication begins to recede into the background and give way to another that is more complex and sophisticated. We shall now consider the way in which this first manifestation of children's capacity to communicate with adults comes into being. In the context of our research programme the question as to the emergence of communication naturally carries forward to the question as to how a child's need for communication takes shape: it is precisely the child's endeavour to discover and evaluate himself with the help of other people and through their mediation which compels him to engage in specific activity which, in conjunction with activity on the part of other people interacting with the child, comes to constitute communication.

The question of needs is one of the most complex examined by psychologists. It becomes doubly complex when we attempt to examine how needs originate. Some psychologists regard needs as something innate. Far more frequently, however, it is maintained that the need for communication is evolving throughout man's life and in the course of the child's actual experi-

ence of interaction with the people around him. Yet, without concrete facts it is difficult to imagine how this happens.

Difficulties encountered in tracing the emergence of the child's need for communication have led many psychologists to present it as no more than just another need which is innate in man. They would have us believe that an adult is a source of the most diverse and interesting impressions a child could possibly want, since he is colourful, utters melodious sounds, is soft and warm, is constantly on the move and is also a course of a variety of smells. In view of the fact that a child's brain is like any other organ in its constant demand for nourishment, the baby quickly establishes that interaction with an adult supplies his growing brain, better than anything else, with nourishment in the form of information and it is for this reason that a child seeks the society of adults.

Other psychologists reduce children's need for communication with adults to another more basic need, namely, the satisfaction of their simplest physiological needs—to eat, drink and be at a comfortable temperature. They then proceed to point to the following pattern of development: the baby discovers that adults feed him, still his thirst and keep him warm, and this explains his striving for the company of adults. In both cases it turns out that the need for communication does not represent any step forward, does not involve anything that is new: it is seen as nothing more than just another innate need of the human organism, but one of a secondary order. The sight of another human being, the sound of that person's steps, and his or her conversation come to represent signals that the child's fundamental well-being is about to be attended to—the source of impressions, warmth and nourishment is at hand. The physiological initial need which was the basis of the child's behaviour remains so. Yet over this need there now takes shape a supplementary system of signals: visual and auditory input which

was formerly a matter of indifference to the baby now announce to him satisfaction, a full stomach, repose and for this reason such input begins in itself to give rise to joy.

Our research, however, has convinced us that the real state of affairs is very different. Input from adults initially does indeed mean very little to the child. A little later it begins to herald the source of all that is good and essential for life. The appearance of adults signals to the child that soon his physical needs will be satisfied. For a child it thus becomes extremely important to learn to pick out this important source of all that is good, to be able to determine where it is and to direct his attention towards it: that enables him to economise on effort, to cry only when it is necessary and only as loudly as required to obtain his goal, as he sensitively adapts his behaviour to meet the requirements of the all-important component of his situation. There is no doubt that an adult human being is the optimal source of impressions which can satisfy the child's need for information. He is after all the richest, most mobile and most versatile object in the child's life, which adapts itself to the child's capacities far better than anything else.

Two innate needs referred to earlier stimulate the baby to engage in his initial activity. They compel him to engage in orientational-exploratory activity aimed at picking out the adult and studying him. The activity which the child actually engages in is, as Leontiev aptly noted, always richer than the need which gave rise to it. The same occurs with regard to communication: the baby was looking for his source of nourishment, warmth and impressions, and found far more—a loving and caring being who is beginning to see in the baby the future man and who, in advance, respects and values the evolving individual in the baby. Thanks to this truly human approach by the adult the child senses himself to be not merely the recipient of the adult's care, but his partner in communication. In this capacity he feels him-

self to be the adult's equal. The adult reveals to the child his value as an individual in his own right and help him to discover his own individuality. Although as yet only in a blurred, vague way, the first and probably the most important fruit of the child's self-discovery is his awareness of the reflection of himself as a partner in the activity of communication. This landmark is the first step he makes in the endless series of discoveries about himself and its essence characterises the insatiability of man's thirst for solving the riddles of his own personality.

All this leads us to affirm that the need to communicate is born and is constantly being renewed in the course of activity and that it is stimulated by other needs—those for new impressions and the good things that life has to offer to satisfy our vital physical needs. This orientational-exploratory activity which by its very nature is a searching need, provides the basis for the emergence of the need for communication and reveals the possibility for its emergence. This possibility becomes reality thanks to the fact that the adult caring for the child behaves towards him as his equal and rewards the baby's searching with emotional gifts that are unexpected and initially unknown to the child. The psychologist Zaporozhets pointed out that the need to communicate is the first non-physical need in the life-story of each individual. Of course, this need has its own very special implications peculiar to it alone—the urge on the child's part to discover himself and to assess himself via the mediation of another person and with that person's help. Earlier needs played a subsidiary role in this respect, when they revealed new values to the baby, in the course of his activity to satisfy them. In this sense they provided the basis for the emergence of the communicative need. Yet they did not become part of this latter need, they were not incorporated in it after establishing a framework of a system of secondary signals. The need for new information and physiological needs continued to exist of course, and as

the baby grows these needs also become more complex, more intricately ramified and more sophisticated, but in essence they remain what they always were. The need for communication, however, is a genuinely new formation, something which initially, in the neo-natal period, that is immediately after birth, did not exist and only now, in the second month of life, suddenly appears, given the all-important input from the adult caring for the child as its precondition.

In our study of this question we carried out lengthy observations involving daily encounters with babies and the plotting of their behaviour in conditions laid down with rigorous precision. Our subjects were 23 babies from a children's home aged between nine days and six months. Almost every day I carried out experiments with the babies on an individual basis, using five different kinds of input each lasting for thirty seconds: first I leant over the cot and looked at the baby without saying anything, then I did the same thing again but with a smile, the third time I stroked the baby's chest as I looked at him, the next time as I looked at him I uttered a few gentle words in a soft voice ("Alyosha, come now, little one, look at me and say 'Hallo'!") and finally I smiled as I looked at the baby, stroked his chest and spoke to him all at the same time. During the second, third, fourth and fifth contact periods the activity on the part of the adult lasted for about ten seconds, and during the next twenty seconds I remained nearby, giving the child the chance to respond to me if he should so wish. Short pauses of between thirty seconds and one and a half minutes ensued between each of the contact periods. During those intervals I walked far enough away for the child not to be able to see me.

During these observations of a "pure communication" situation the child was lying in his cot while the adult proceeded as outlined above. The whole series of actions was, however, repeated later the same day or the following day during a "feeding

situation": I would place the baby that had just been fed on my lap and hold him in the "breast position". In the intervals between the five contact periods I turned away to one side so that the child could not see my face. Each time I turned back to look at the baby marked the beginning of the next contact period.

All elements of the babies' behaviour were meticulously charted in the log of the experiment. The five main activities were as follows: (1) becoming transfixed and concentrated, showing that they were paying attention to the adult; (2) directing his gaze at the adult's face and then moving his gaze over the whole of the upper part of the adult's body; (3) smiling and later other manifestations of emotion such as laughter or dissatisfaction; (4) pre-speech vocalisations (gurgling, squeaking, babbling) and (5) animation reflected in the movement of the all parts of the body, excitement involving the baby's limbs, trunk and head. First of all the baby became transfixed and began concentrating, a little later he began deliberately directing his gaze at the adult holding him, soon afterwards there followed the smile and finally, at virtually one and the same time, came the vocalisations and the animated movement. Not only did we observe the appearance of the above elements of behaviour but also recorded their intensity and duration, and various nuances in each element.

During the first two weeks the appearance of the adult did not give rise to any change in the state of the child as he lay in his cot. Only when he was lying in the "breast position", then prolonged gentle talking and the stroking of his chest led the children to concentrate their attention, first becoming transfixed and coming over slightly tense. At the beginning of the third week the input from the adult began to lead the babies to engage in orientational actions: they were trying to pick out the adult by training their eyes on him. After another few days had

passed, the babies already followed the adult with their eyes as he moved about from one place to another; indeed, they used not just their eyes but also their heads and the whole of their bodies in doing so: they seemed to be trying to reach out towards the adult. This was how the behaviour of the children developed, which testified to the emergence in them of the first criterion for a need to communicate, namely attention being paid to an adult.

By the end of the third and beginning of the fourth week the first manifestations of emotion could be observed in the children. Initially the adult's smile called forth its reflection, so to speak, in a smile from the child and then the baby's face lit up in response to other types of input from the adults. By the end of the first month almost all the babies were beginning to smile at me on their own initiative, when they had only just caught sight of me in the distance. This is how actions evolved which testify to the emergence in the baby of the second criterion for the need to communicate—an affective relationship with his elder partner in eventual communication.

During the second month, in addition to a concentrated gaze and smiles, there were vocalisations and animated movement to be observed. Taken together, these five elements constituted an integrated phenomenon—the compound action referred to by the Soviet psychologist N. M. Shchelovanov as the "animation complex". On seeing the adult, the baby would become transfixed for a few moments, tensely concentrating on the body and, in particular, the face of the adult. His eyes would focus on separate parts of that face one after the other. The expression in the baby's eyes would brighten and become more animated, and then it would start to move quickly from one part of the adult's face to another. The tension would ease, a smile would spread across the baby's face, the baby would move its head about on the pillow, throwing up its limbs, arching its back and turning

over, and all the time it would be making a variety of sounds.

This we see as demonstration of the fact that the baby had already developed a need for communication with adults, i.e. the animation complex figures both as a *reaction* to the activity of other people, and also as *action,* the manifestation of the baby's own activity in which he engages on his own initiative. The question then arises as to how we differentiate between the instances when the baby is *responding* to an adult and those in which he is *addressing* him on his own initiative.

The first evidence, pointing to the active role of the animation complex, emerged when the following pattern was identified: the less adults paid attention to the baby, the more activity the baby engaged in. A simple glance directed at the baby produced the maximum effect, provided that the baby's need for communication had already established itself: the baby would move energetically, gurgle particularly loudly, wave his arms about wildly and, more often than not, he would be crying out as well. If the glance was accompanied by a smile, stroking or conversation, the combination of all these signs of attention being paid to him had a soothing effect on the child: he would confine himself to a concentrated gaze for longer periods, and then, if he smiled at all, it would be a quiet peaceful smile, and only rarely would he utter short melodious sounds of pleasure. Another pattern was also observed: one and the same input, when the child was lying separate from the adult (during "pure communication"), evoked a stronger response than when the child was in the "breast position". If we take stroking, for instance, and contrast the reaction we find the following picture: when in the "breast position", the child responds with a subdued reaction consisting of a short, faint smile, a short "freezing over" in concentration and very muted physical animation, while vocalisations are almost entirely absent. If the child is lying separate from the adult in a "pure communication" situation, the

same stroking will give rise to totally different action on his part: there will be a lively smile, frequent long vocalisations, a moderate degree of physical animation, and the baby will be transfixed during the whole time he is actually being stroked. The same patterns were found among all the children examined in the study, in experiments which were repeated many times over. This means that the animation complex is not subject to the ordinary *law of force,* according to which the extension is proportional to the extending force *(ut tensio sic vis).* It does, however, comply with the *communicative task* the more passive the partner the more effort has to be expended to encourage him to interact.

The second evidence pointing to the active role of the animation complex lies in the fact that it often appears *before* the adult addresses the child, anticipating the adult's initiative. The baby often utters sounds and moves excitedly when the mother begins talking to a third party at a small distance from the child. In such cases, it is perfectly clear that the child is not responding to the adult but trying to influence her, sending out an appeal. The third piece of evidence, reinforcing our interpretation of the animation complex, is that the latter is by no means just a mirror image of the adult's input. The sounds of the adults' speech led the children to "freeze over" in concentration, to smile, to engage in animated movement, and not just vocalisations. The adult's smile called forth activity on the part of the baby, which was complex in composition and was in no way merely confined to facial expressions. Our analyses showed that in all cases all five of the various types of activity directed at the baby (a gaze, smiles, stroking, talking and a combination of all four) called forth typical varieties of activity on the part of the baby which could be relied upon to follow a particular, set pattern. The link between the actions of the adult and those of the children was determined once again by com-

municative tasks. It reflected the endeavour on the children's part to attract the adult's attention, keep him nearby, and to intensify and lengthen his contacts with the adult.

This identification of the active function of the animation complex shows that by the age of two months the baby has acquired a need to communicate and communicative activity is taking shape, which is satisfying that need. The first indication—attention paid to another person—is evident: the babies have begun looking at adults for long periods at a stretch, persistently following their movements and observing their actions. In a sustained way the children are listening intently to the sounds of adults' speech and of their steps in the next room. The second indication—an emotional response to another person—is also undoubtedly present: it is manifested in the expressions which convey various nuances of the child's happiness and his affection for the adult. After two months it is possible to observe in some children indications of disappointment at the moment of separation: the smile disappears from the child's face, he frowns, turns his face in the direction in which the adult has moved away and for a short time afterwards he does not engage in any activity.

The third indication—the endeavour to attract an adult's attention to himself—is to be found mainly in the baby's animated movement and his vocalisations. As the age of three to four months, when the need to communicate is already well developed, we observed in the children taking part in the study the following means of seeking attention: the babies would "take steps", moving their legs energetically to and fro, although they were lying on their backs as they did so, they uttered piercing shrieks of joy, they smiled radiantly, made saliva bubbles and then loudly, through these, blew forth sounds of rapturous delight. They "built" a whole series of "bridges" by pressing into their mattresses with the nape of their neeck and their heels

while they arched their bodies, trying all the while not to lose sight of their adult partner in communication. While I persisted in wearing an imperturbable expression, the babies tried harder and harder to capture my interest. Yet as soon as I laughed, stroked or caressed the child at the end of the contact period, he would relax, "freeze over" in concentration and just look me straight in the eye. A pause of this kind could last a minute or two, yet as soon as I took even one step away from the cot, the baby would again start engaging in activity and invent new means of capturing my interest.

The fourth indication—the child's endeavour to merit approval—was also to be observed in the babies we were studying. As soon as an adult moved over to the baby and brought his or her face nearer to him, smiled or said something like: "Hallo, Misha, my friend, what a good boy you're being today!", the pace of the child's movements would quicken, and their scope would become broader. At the same time the child would look hard at me, as if to ask: "Am I doing well?" On other occasions a researcher would shake his head disapprovingly and say gently: "No, you mustn't do that", and although a baby of under six months is not yet able to take offence or grieve, he is nevertheless able to distinguish such utterances from praise: his movements slow down or stop for a moment, he studies the adult's face attentively and gradually stops the movement calling forth the disapproval completely.

Therefore on this evidence in accordance with the four indications defined earlier, in the space of two months we have seen a new need unfold and the first stage of the emergence of that new need reach completion—babies' need to communicate with the adults in their immediate environment.

Within the context of the first form of communication a child's main communicative motive is an *interpersonal* one. There is no other, supplementary reason for him to turn to the adult caring

for him apart from communication for its own sake. Babies' communication with adults does not further any other form of co-operation between them, but consists of independent episodes in an exchange of expressions of tenderness and gentle affection. It is spontaneous communication, closely bound up with *emotions*: the child expresses to the adult the profound satisfaction he derives from his contacts with the latter and seeks in the adult's relationship towards him signs of the adult's interest in him, combined or fused together with signs of the adult's attention.

The interpersonal character of the communication at this particular stage stems from the nature of the predominant motive of such communication. As the motive for the communication is found to be the attributes of another person for the sake of which the child turns to him, it thus follows that the baby is focussing on the adult's *personality*. Yet a personality is one of man's highly complex and profound possessions: in an adult personality there are countless facets and moods! There is no doubt that the nuances involved are not all accessible to the small baby. Experiments have demonstrated that up until the age of three months children who have been cared for in closed children's establishments cannot distinguish individuals one from another at all. It has been established that in ordinary conditions children brought up in homes are willing to let any adult pick them up and are not frightened by strangers. Neither do they appear to mind whether a man comes up to them or a woman. Only during the fourth month is it possible to observe the phenomenon we refer to as "positive recognition", when a child who has grown up without a family begins consistently to show preference for his mother (if he has one) or to be able to distinguish strangers from the adults whom he knows (nurses or teachers). The baby, as before, will not reject new people, he will enjoy their presence, too. However, his emotions and

initiative will be at a conspicuously higher level when interacting with those adults to whom he feels close. His continuing readiness to approach all people in a positive way gave us grounds for referring to this form of recognition as positive.

One might well assume that a child of under six months, while concentrating his attention on the personality of adults around him, might not be able to distinguish between different adults. He would appear to perceive the general characteristic to be found in all adults—their existence as individuals, as subjects, in other words, their capacity for perceiving the baby's appeals to them and for responding to him, and their readiness, on their own, to turn to the child.

We explained why we refer to the earliest genetic form of communication as interpersonal. Yet why do we also refer to it as *situational*? The fact is that babies, after they have entered their second month, manifest an astonishingly fine sensitivity to the gradations of adults' attention. Mention was made earlier of the way in which, in our experiments, children reacted sensitively to smiles accompanying an adult's gaze. Experiments revealed something still more surprising: from six weeks onwards, babies reacted in an extremely lively way to tender words addressed to them. The intensity of the animation complex in response to an adult's utterances almost reached the maximum possible in such a young child. In the first months of life the child has, of course, no linking of the meaning of the words, but the expressive nuances in the voice uttering them are of exceptional importance to him.

In our observations children of between six weeks and three months picked out approbation ("Well done, that's the way, on you go!) and prohibition ("No, now why have you done that, that's naughty, you mustn't!). Both phrases were uttered in a soft voice with a smile. Despite this, the babies were able to pick out the difference between the two utterances! In the first

case they intensified their actions, while in the second they slowed them down. We attribute the above findings with reference to the heightened sensitivity on the part of the baby to the immediate circumstances, to their highly situational character. The child perceives in the adult only that which is universally human, yet at the same time is able precisely to make out the finest nuances in intonations used in adult speech and differentiate between various sets of facial expressions! In the paradoxical combination of the above two characteristics is to be found, in our opinion, the essence of situational-interpersonal communication.

The dominant *means* of communication in the first stage of its development are emotional operations involving facial expressions and gestures. The main ones used are the gaze and the smile. We outlined earlier the characteristics of gazes and smiles, their function in communication and their origin. It is timely to point out here that not all psychologists share our views on this subject. Thanks to the influence of adults, emotions and emotional experiences do indeed begin to appear in children, but "Why should these be linked with communication?" we are asked. Doubts seem particularly justified in view of the fact that babies are not able to regulate their actions, including their expressions of emotion. Can we then single out operations in their behaviour or look for communicative tasks which are resolved with recourse to these means?

The activity of babies is of course very different from adults' activity. They cannot subjectively reflect their needs and motives, they are not aware of their own communicative objectives and tasks. They do not have at their disposal an arbitrary selection of communicative means over which they have control. Nevertheless we are of the opinion that babies' lack of an opportunity for subjectively reflecting the structural components of their activity in no way testifies to their objective absence.

Expressive means of communication facilitate the manifestation of the child's emotional states and herein lies their first function. This function is a non-specific one, because many expressions can appear in a variety of situations (not just those relating to communication): a baby can grieve both at his mother's departure and when he loses a toy, and on hearing a harsh unpleasant sound. His face can light up both in response to a caress from an adult relative and, when he catches sight of a favourite toy, and on the occasion when he manages at last to catch hold of a ring hung up over his cot. Yet emotional expressions are used at the same time as active gestures addressed at other people. In this, their second function, they bring the inner emotional experience of the child in line with the system of standards accepted in the particular society. Adults shape the selection of expressive gestures used by the child by encouraging acceptable ones (glances and smiles) while trying to eliminate inacceptable ones (excessively loud cries, squeals, angry waving of the arms). Thanks to the efforts on the part of adults, and children's willingness to comply with their desires, babies' expressions soon come to be signs comprehensible to the people in children's immediate environment.

The third function of expressive means of communication lies in the fact that they serve as indicators of the relationship between the child and the people around him. With their help children demonstrate their liking for and friendliness towards others, or the opposite. Our experiments have revealed a striking degree of sensitivity in babies with regard to varying levels of attentiveness and benevolence in the faces and poses of adults from the second month of life onwards. Expressive means of communication retain their importance throughout the whole of the individual's life to follow. Sometimes they are used in their "pure" form, but after the first year they more often appear in conjunction with other forms of communica-

tion. As we see it, the enduring importance of expressive means of communication lies in the fact that they convey certain nuances of people's relationships with a completeness, and in a special way that is not achieved through any other operations.

More vividly, more completely and more precisely than all other operations they convey the attentiveness and interest of one person for another. Facial expressions which can every time lend a glance a different note are the best manifestation of concentration in the listening or watching person. No words and no action, in the absence of a visible gaze, can provide such convincing proof of the interlocutor's genuine attention. It can be stated without hesitation that in the first six months of life a baby's gaze at an adult testifies one hundred per cent to the fact that his attention is directed at that adult. Equally a glance to one side belies attention being paid to some other object or objects.

Equally unquestionable is the way in which expressive means of communication convey the friendliness and general liking of an adult and baby for one another. If an adult smiles at a baby looking him straight in the eye, he is addressing that smile at the child in general, not rewarding the success of a specific action. The baby's smile at the adult also expresses the child's general liking for the adult as a person, an individual.

Babies of less than six months appear to be entirely spontaneous beings, waving their little arms about at random, twisting their legs to and fro for no apparent reason, as they sigh and cry out. All these movements have no visible goal or result. Babies behave in an equally unorganised fashion when an adult appears. To an inexperienced observer the animation complex appears as an uncontrolled "peaceful explosion" of excitement that is a random phenomenon, an expenditure of energy devoid of any purpose. Yet our research team considers that the communication of children with adults during the first few months

of life can be defined as communicative activity. Moreover, during that period of childhood it constitutes the baby's dominant form of activity. Demonstration of this hypothesis is important from the theoretical point of view. Earlier it was pointed out that each period of mental and emotional development is singled out in accordance with a dominant form of activity. Until recently it was denied altogether that babies were capable of such an organised form of behaviour as activity. This meant that the first months of life were omitted from the periodisation of mental and emotional development and classified merely as the period of "motor-sensory training" or "maturation", in short, an extremely primitive form of existence.

Our next step was to carry out a detailed study of the animation complex in small babies: this involved thirty-five children aged between one and six months. At intervals of between one and two days we showed the children a range of specially selected toys, alternating these with input from an adult. First of all we established that the intensity of the animation complex was always far greater when a child encountered the adult than when he was merely shown a toy. In the first instance the animation complex was also of a more complicated nature: it included all the various component elements, the smiles observed were particularly bright and melodious gurgling was to be heard for a long time. The appearance of the toys led the children to become transfixed with concentration at first and then to engage in animated movements.

When the babies encountered the adult the animation complex reached a particularly high degree of plasticity. As soon as the researcher changed his means of contacting the child (for example, when instead of smiling he stroked the child or talked to him) the whole of the child's response pattern was changed. A change in the toy he was shown or the way a toy was moved or turned round did not result in such modifica-

tions of the response pattern, but merely in a change in the intensity of the animation response.

It was also observed that after the encounter with an adult the children were in a joyful state for a long time, they were paying more attention to everything around them, including their toys. If, during experiments, we showed them only toys, the children would gradually lose interest in what was going on around them, come over limp and finally stop paying attention to what they were being shown, look away and just doze off.

The above findings point to the fact that the animation complex begins first of all to take shape in the course of interaction with adults and possesses first and foremost a communicative function, appearing not merely as a response activity on the part of the child, but also as an initiating activity. Only later does it gradually become for the children a way of expressing their joy, stemming from any kind of impressions. This means that the animation complex also acquires an expressive function, yet this latter remains of secondary importance both genetically and functionally speaking.

The conclusion to the effect that communication by babies with adults is an activity and that it occupies a dominant role among other forms of babies' activity is most important from the practical point of view. It means that with the help of situational-interpersonal communication it is possible rapidly to further the progress of children in all the main spheres of their mental and emotional development.

Among the many studies carried out we shall now consider merely those relating to the intensification of babies' first genetic form of communication.

It was established in the course of our research that the intensity of the animation complex usually varies over a wide range. Yet, among orphans living in children's homes and

among babies brought up at home by parents loath to spoil their children and thus making them lie in their cots all the time rather than picking them up, the animation complex proved to be considerably weaker and less varied in content than in the case of babies who were used to constant and lively communication with adult relatives. We organised special sessions with a group of orphan babies. Each session involved one individual child for a period of between 7 and 10 minutes, either every day or every second or third day, so that during a two-month cycle each child would have 30 "lessons". The encounters with the babies in question incorporated all the things which are particularly enjoyable to children of that age: the adults' gaze and smile, stroking, talking, all of which were interspersed one with another and at times grouped together. I made sure that each baby experienced the full degree of rapture of which he was capable at each session.

In the life of orphans, who have been spending all the time in one room and subjected to one routine moment after another, in circumstances where each feed and nappy change is an event, our sessions presented a communicative concentrate or "pill", to use Zaporozhets's term, as a result of which the animation complex blossomed in these babies with a rare luxuriance and assumed its own individual form with each of the children involved. The most striking change to be observed was in the length of the vocalisations and the intensity of their animated movements, in other words, in precisely those operations with the help of which babies actively attract adults to engage in communication and try to stimulate their interest and attention.

It is timely at this point to stress that the rapid flowering of the animation complex in the children from our experimental group was the result of communication with an adult who was not engaged in feeding the child, bathing him or changing his

nappies. This meant that it was the babies' satisfaction of their communicative need as such that was contributing to the child's success!

Other achievements by our "pupils" were also recorded in detail: in particular, it turned out they became extremely curious, overtaking by a wide margin other babies of the same age. A record of their cognitive activity was made and compared with that of twenty children from a control group in conditions where the children could not see the researcher but were observing various toys. It turned out that the children taking part in the sessions noticed more quickly when a new object appeared and concentrated on it. By the time a minute had passed they were worked up—moving their limbs, waving their arms about and sometimes encountering the toys hung up before them with their little fists by chance, which would make them become transfixed, only to start up their excited movements again a moment later. Finally, they derived enormous pleasure from encounters with new things which was incomparably more vivid than that observed in the children of the control group. Our "pupils" grasped dexterously at the toys, brought them confidently up to their mouths and then examined now what they looked like, now what they tasted like. This test of the children's curiosity we tested out twice: the first time, after fifteen lessons and the second time, after thirty. As the second test showed, the "pupils" from the experimental group had progressed further than the other children, and this time by an even wider margin. They looked at everything around them with lively interest, quickly reacted to everything that was going on nearby and noticed astutely the movements, sounds and objects in their immediate environment. Thus, repeated lessons in the situational-interpersonal communication promoted a child's general mental and emotional development.

Our work demonstrated that the introduction of short epi-

sodes of vivid communication with adults in the lives of such children helps guard against their becoming institutionalised: children being brought up in closed child-care establishments progress quickly, both socially and with regard to their cognitive skills, and the fundamental features of their personality begin to take shape, just as they would in children growing up within the family. Signs also emerge that they are beginning to become aware of the moral aspects of people's behaviour, such as a well-meaning approach to other people, to the world in general and that they are gaining self-confidence. We also established that the animation complex needs to be developed in children in good time. The best period for work to that end are the child's second and third months of life, when the natural process of the emergence of this complex is not yet complete.

Examination of the earliest genetic form of communication between a child and adults emphasised the importance of events in this sphere for the subsequent emotional and mental development of young children. Attention and benevolence on the part of adults bring children vividly joyful experiences. They acquire positive emotions that make them cheerful and stimulate their activity. Input from an adult arouses the baby from a drowsy state and helps him master the means of obtaining impressions from outside himself and of analysing the latter. He begins by discovering and studying the face of the adult as the chief object of this cognitive activity. Later, the children apply the cognitive methods elaborated by them in the course of their communication with adults in relation to objects. Their perception of shape, colour, the pitch and volume of sounds, tactile and temperature stimuli becomes more sensitive. This means that communication furthers their overall cognitive development.

Of decisive importance for a child's development at this

period of his life is the fact that, thanks to communication, the young baby begins grasping objects. At first he shakes his arms about haphazardly and in an aimless fashion, simply as a result of his excitement on encountering an adult. The movements of his arms, initially, merely constitute one of the components of the animation complex. Gradually, however, the child's arms begin knocking into objects near him more frequently. This also begins to happen even when an adult is not present, merely when a child catches sight of an attractive object. Attempts to reach an object begin. These find expression, for example, in the fact that a child, with his eyes wide open and waving his arm about, opens his mouth as he faces an object and even puts his tongue out a little way towards it. After all, in the baby's first months of life he used to try and feel round every object he encountered with his mouth, that being his most "sophisticated" cognitive tool. As movements of his hands, eyes and mouth gradually come together, so the child draws nearer to eventual success. By four months children are able confidently to take hold of a toy.

Mastering this skill literally revolutionises the baby's life. For the first time in his short life the baby is learning by himself, without the help of an adult to carry out some of his intentions: he reaches an object that has taken his fancy, he is able to let it drop, then pick it up again and, with the object in question, execute simple, but, for him, infinitely absorbing actions. He can push the object into his mouth, shake it about, bang it against the side of his cot. There now appears in the child avid interest in objects in his immediate environment and an insatiable desire to engage in activity with these. A new type of dominant activity emerges—object-directed, manipulative activity, which in the months that follow will for a long time be the fundamental one with regard to his subsequent emotional and mental development.

It might seem that manipulating objects is something that all children learn simply and naturally, and that adults and communication with the latter are of no significance in this connection. It might seem that this is a skill that is bound to emerge, when the "time is right". This point of view is a dangerous illusion: without contacts with adults a baby either does not rouse from his drowsy state at all or remains limp and passive and lags seriously behind in his development. Until a baby has passed through the phase of showing interest in adults he is not going to experience interest in objects. It is people who first compel him to turn his attention to something outside himself. It is precisely people who help him also to master the simplest of operations involved in examining and studying the objects which surround him. After all, no object is capable of moving close to a baby or turning to him from an angle which makes it easier for the baby to take a good look at it. Only a person who is concerned to further a baby's development is going to behave in this way. Adults, however, soon introduce objects into their interaction with children. They actively draw a baby's attention to toys—for instance, they shake rattles so that they make a noise and then move them first nearer and then further away from the baby they are caring for. They will hold up a new little packet to show it to a child, or pretty knitted bootees complete with tassels. This means that situational-interpersonal communication performs two functions in the life of a baby: it stimulates his interest in the world around him and the means with which the child can discover that world, and at the same time it provides the framework within which the child for the first time focusses his attention on objects and things. Although a child may be surrounded with objects, without an adult or if communication with the adult is minimal, a baby will hardly take any notice of these objects. Yet, as soon as he makes contact with adults, it is as if scales

fall from his eyes: he learns to look out into the world and after discovering his fellow men he comes to see in that world a whole host of objects.

If properly looked after and "educated", a child learns by the end of his first half-year to take hold of objects and take an interest in his immediate surroundings, and then he progresses to a new, higher stage of development.

The Situational-Practical Form of Communication. The Pre-verbal Stage (6-18 months)

By the age of six months the nature of contacts between a baby and the people around him changes: it takes on a new form, which we shall refer to as situational-practical communication. The situational nature of the interaction is still apparent: the child turns to adults in connection with immediate events and responds mainly to what they are doing and what they are saying to him at a given moment. Yet the immediacy of the purely emotional contacts gradually recedes into the background. Episodes of emotional contact become short and lose their dominant character. Communication now becomes part of the baby's practical activity and as it were serves his "practical interests". Taking hold of something, pulling something out, fixing something in—all these tasks which a small child cannot do himself or finds difficult to do come to constitute grounds for him turning to adults. This is why we refer to the second genetic form of communication as *practical*.

Such communication comes into being when a child begins confidently to take hold of objects and perform simple manipulations with them; it continues throughout the pre-school period of childhood.

Inevitably this practical communication undergoes major changes: it is quite different in a six-months' old child and a six-year-old child. Yet certain basic characteristics remain the same and serve to help us identify it.

Up until the age of six months a baby seeks friendly attention from adults and is satisfied with that. Later on children continue to refuse to accept indifference shown them by people in their immediate environment. They start to cry out, pull at adults' clothes or hands in their efforts to make adults look at them. Yet up until the age of six months all a child was after was capturing the adult's attention. After six months, however, such attention is seen merely as the lead-in to further happenings, as the background to the latter. The basis of all the child's endeavours is now to secure the adult's practical co-operation. The baby wants the adults to start joining in his activities with objects. He demands that they should take part in what he is doing. This is why we define the communicative need in the second form of communication as the *need for co-operation* between child and adult.

The earlier, purely emotional interaction is no longer what babies want. In irritation they turn away from an adult's hand that merely strokes their head, or from the adult who just gives them a lingering look and a smile. They become annoyed if the adult comes out with kind words that are not "object-directed" and they are persistent in inviting their partner in communication to engage in some kind of joint activity. A child either directs an adult's attention to something in the far corner of the room, or points to the colourful pattern on his jersey or a button and chortles quietly, appealing to this person.

This change in the child's communicative need in his interaction with an adult came vividly to the fore in experiments carried out by S. Kornitskaya. Children aged between eight

and eighteen months took part in this particular study. Twenty sessions were organised with each of the children that only involved gentle words and caresses, and another twenty sessions, during which toys were used, and still another twenty, during which the researcher talked to the child, and read him rhymes and stories. In similar sessions involving children aged three months all these activities were enjoyed: all they needed was that adults should be present and should show them interest and tender concern. Quite a different picture emerged, when children of the 6-18-month age group were being studied. Most of the children preferred the session involving play. They squeezed the soft toys, touching them and feeling them and, after a short period of concentrated examination, they would either give them to the adult or throw them on to the floor, and then immediately afterwards ask to have them back again. After being given a plastic brick, the children would bang it against a wall or a table; a soft doll they would pick up by the leg and shake about. All their actions were very simple and did not in any way reflect the characteristics of the objects concerned: these we refer to as non-specific manipulations. Yet this use of the toys brought on a state of marked excitement in the children: they cried out loudly, waved their arms about energetically, their cheeks went bright red and their eyes shone.

Yet the children were not just preoccupied with the objects as such: every now and then they turned to the adult. A little boy might point out the bow on the neck of a fluffy dog, then focus his concentration on a key-ring suspended on a string nearby and chortle as he poked it with his finger, while turning his gaze to the researcher. A little girl of a year might ask the researcher, through signs, to pick up her rattle which has rolled out of reach: she examines the rattle carefully with her eyes, lips and hands, knitting her brows in concentration as

she does so. Then she holds it out to the adult, but instead of handing it over she quickly hides it behind her back. The cunning expression on her face points to the little girl's playful mood.

The situation was rather different in connection with two other types of activity. Gentle words and caresses aroused slight displeasure in the children and obvious attempts to change the character of the communication. As they were being held by the adult, they deliberately fingered the buttons on the clothes she wore and tried to take off her glasses. After noticing the researcher's watch, they passed their finger over the face and babbled something at the same time. When the children were in their play-pens during the sessions of the first type, they used to pull off their socks, take the laces out of their little shoes and hold them out to the researcher. Every now and then they tried to direct the adult's attention to other children or to flowers on the window-sill. They hardly seemed to notice the adult's kind smile. When the researcher spoke and read to them, their attitude was ambivalent: if the researcher was sitting a long way off from the cot, the children would first of all move in time with the rhythm of the poem, shaking their head to and fro, but they soon came over bored and even began to doze off in some cases. If a child was being held on the adult's lap, he would study for a long time, and without getting distracted, the movement of the adult's lips: he concentrated hard as he watched, he would touch the adult's lips with his finger and sometimes he would even try to put his little hand into the adult's mouth. Occasionally he would look into the adult's eyes and smile, but frequently he would come over confused as he did so and then revert to watching the adult's moving lips, knitting his eyebrows in concentration. The children did not manifest either joy or animation as they did during the sessions when toys were being used.

Again and again the children would demand firmly that the adult close to hand should play with them. Some of them tried to pull the researcher over to the toy cupboard, and proceed to push the adult away, if he began to stroke their heads and use tender words, or they would cry loudly in disappointment and frustration on seeing that the adult was going away. In these ways children aged between six and eighteen months openly and cogently expressed their need for joint activity with adults and their contempt for emotional and verbal contacts, if these were not combined with manipulation of objects.

As soon as the adult returned to joint play, the children came over wildly excited, actively responded to moves made by the adult, extended promptings from the adult and willingly introduced ideas of their own into the shared activity.

All the above findings can easily be explained by the fact that in the child's overall activities, practical communication with adults, unlike situational-interpersonal communication, is not the dominant type of activity for the child: the manipulation of objects has come to occupy pride of place, while communication unfolds against a background of such manipulations and provides support and assistance for the latter. This new situation effects the content of the communicative need and lends a practical, business-like character to the contacts between child and adults. Communication and joint practical activity, however, are closely interwoven the one with the other, and give rise to a single mental-cum-emotional phenomenon. We refer to this as *co-operation.* During the pre-verbal stage practical co-operation emerges in a primitive, somewhat unusual form. If we approach it from the angle of the small child, then its essence could probably be formulated as follows: "What needs to be done I know already, by myself, so you just help me!" In other words the baby himself selects the manipulations with objects, while the adult is necessary so as to help

him and give him support. Children require physical help: they need to be handed things, to have things lifted up or brought nearer for them, but that physical help is not everything. The baby also seeks "moral" support: he is sensitive to praise and actively seeks it. Reproaches from an adult distress him: for example a researcher, smiling as she did so, told babies aged 9-10 months when they put a ring in their mouth: "Why are you putting that in your mouth? You mustn't lick it, no. Don't do that!" The reaction was extreme: one child stopped in his tracks, his lips began to quiver and his eyes filled with tears; he was hurt. Another deliberately pushed the ring into his mouth as far as it would go and looked defiantly at the researcher. He was defending his right to select the actions he carried out. A third immediately embarked on a jolly game: he brought the ring up to his mouth and waited staring hard at the adult, then burst out laughing and dropped the ring, before proceeding to pick it up and hold it near to his mouth again, looking round craftily as he did so.

Detailed examination of children's first actions with objects showed that after six months children initially behave identically with all of them: they look them over, feel them with their lips, lick and suck them, every now and then taking them out of their mouths and lifting them up to have another look. In the first year of life a child's mouth is his most essential "instrument". After all, since birth children have been using it to determine the taste of food and its temperature, and the texture and shape of their dummy, and no matter how hard parents might try to stop them, babies will still put objects into their mouths at every opportunity. Children compare the sensations which they obtain via their mouth with their visual and tactile sensations and their awareness of temperature. A child's eyes, mouth and hands work in real harmony and new impressions are a major source of happiness to him. Yet the primitive

character of the manipulations and the simplicity of the actions he can carry out do not allow him to discover objects' wealth of different properties: this explains why children quickly lose interest in objects. This is when help from an adult becomes extremely important. When an adult piles one brick on top of another, the child is amazed: nothing of the sort had occurred to him! He looks wide-eyed at what has happened. When they are a little older, children show tremendous interest in every toy that an adul touches and hurry to take possession of it. Then, a little later still, the child will try to repeat the actions of the adult, yet fails in the attempt. The child becomes excited and angry but soon finds a way out: he pesters the adult, pushes the object into his hand and asks him to repeat the process. Then again he will take the object away from the adult and will try hard to reproduce what the adult has been doing and to succeed.

After the age of a year children's actions with objects, primitive and repetitive at first glance, become much more complicated. As before, the children only take into account the most basic properties of the objects they manipulate, but by this time they base their manipulations on the physical properties of the objects: they will roll a round ball, an apple or a grape, they will pile up bricks one on top of the other, and they will thread plastic or wooden rings onto their finger or a pole. Some things they will watch an adult doing first, but in the main they try to rely on their own experience. These new specific manipulations enable the child to learn far more about objects, and from a variety of angles. He can by now concentrate for longer and play with his toys and various household articles for long periods at a stretch.

The child's new communicative need in this practical activity engaged in side by side with the adult determines the emergence of a new motive for communication—a *practical* one.

It is embodied first of all in the attributes of the adult which come to light in the course of this joint activity with the young child. Research has revealed how appealing, to a child over six months old, is willingness shown by adults to engage in some kind of shared activity and how the child appreciates adults' patience, inventiveness and ingenuity. It is important, however, always to remember that we are talking about the practical motive for *communication.* The child longs for an adult to pay attention to his practical actions and to approve his successes, for that is the only way in which, with the adult's help, the child is able to evaluate his achievements in manipulating objects and share the joy and frustration stemming from those manipulations. When all is said and done, it is only contact with adults in connection with practical activities that enable a baby to discover himself and evaluate himself in this new, vital context of his activity. The dominant role of this practical motive shows that the child picks out in the adult first and foremost specific practical qualities and at the same time endeavours to display to the adult this particular side of his emergent personality and find out the adult's attitude towards himself.

Observations our research team carried out concerning children aged between ten and fifteen months confirmed that the interpersonal motive on its own (tender words and caresses from the adult) was not enough to satisfy the children: they would come over embarrassed, move aside from the adult, look away. As a rule the child tries to involve the adult in joint activity and to lend the interaction with the adult some kind of content or purpose. Purely situational-interpersonal communication, which six months before had brought such boundless happiness to the children, was now obviously burdensome to them. This was not something that merely applied to individual children: it was associated with a particular age group

and applied to all the children observed during the study.

Children behave quite differently if an adult draws them into even the simplest of games: they look at his or her face far more often and far more boldly; they smile and laugh happily when the game comes to a happy end, etc. They show initiative, some of them will laughingly engage in a tussle with an adult, and others will ask for the game to be repeated.

These children derive particular satisfaction from experiments involving objects. One of the researchers, for instance, used to act out a short playlet: a bear would come across a saucepan left out by the housewife and eat its contents; a doll would walk down a plank path stumble and cry; a monkey would wake up, and do some exercises in time to the music of a song. How the children loved our simple "toy theatre"! They watched, all agog, open-mouthed, hardly daring to breathe. When it was all over each child would look up at the adult, smile and then straight away move over towards the toys, hurrying to pick them up and repeat the manipulations they had just been witnessing.

Introducing variations to the situations used in this experiment helped us establish another important fact: the children set great store by new impressions, but prefer these to be combined with communication. In a special series of sessions I organised playlets involving "audience participation": as we went along I would address the child several times and actually use his name ("Look Petya, see what the bear's going to do now!"). I would often look at the little boy's face and respond to his facial expressions and gestures ("D'you think it's funny that the bear's stuck his whole head into the saucepan!?"). When, a little later, the child concerned would try to manipulate the toys himself, I encouraged each successful manipulation ("Here's the bear walking along, clumpity-clump, clumpity-clump!"). During these experiments the children exe-

cuted many different actions, their movements were fairly dexterous and some of them bore a close resemblance to the actions of the adult. The combination of impressions, pleasure derived from their own activity and the practical motives for communication had a most positive effect upon the children's behaviour.

Detailed analysis revealed that, when children had no adult to turn to close by, their activity was of a disorganised character. They would repeat one and the same action many times over (shaking a toy, knocking it against a wall or chair, or scraping it on a table), they would make a noise, shout but fail to reproduce what the adult had been showing them. This points to children's high level of sensitivity to the interpersonal aspect of communication, but on condition that it can be combined with the satisfaction of their practical motives for communication.

In the context of pre-verbal situational-practical communication, a special category of communicative operations emerges referred to as *object-directed/enactive means of communication.* With regard to their origin these are common object-directed actions (a child giving something to an adult, taking, putting down or lifting something), yet they are used now for purposes of communication and their overall character thus undergoes typical changes. The action is no longer directed towards the achievement of a tangible result, many of its strictly "technical" details are absent and it retains only its overall pattern. It turns into a "skeleton" without content, the main purpose of which is to express to an adult a child's readiness to interact and to show in his own way that kind of co-operation he is inviting the adult to take part in. A baby might walk over to an adult and lift up his arms, or stand on tiptoe and stretch up as high as he can. In these two different ways he would be asking an adult to lift him up. On other occasions he might pull hard at the hem of a woman's dress in the

direction of the toy cupboard, making clear with the turn of his head and his gaze as he looks around that he is interested in the toys standing on the shelves. In this way the child would be insisting that he be given the desired objects to play with. In the experiments involving the "toy theatre" the children often used to put into my hands an object they had been given and shake it, in an effort to ask me to show them that particular playlet again.

At the pre-verbal stage of practical communication children are more than likely to convey their attitude to another person with the help of object-directed actions that are usually far from polished and not carried through to a conclusion. During my experiments the following technique was tried out: while sitting next to the group play-pen I would call over one of the children and ask him to bring me one of the things from the large pile on the carpet: for example, a rubber ring or part of a stacking pyramid. After repeating this for three days the toddlers began to pick up and bring over various toys to me as soon as I came into the room, without even waiting for me to ask them to do so. Apart from the children participating in the study, those whom I had never taken along to join in the experiments, started joining in this activity. A typical feature of their behaviour in this situation was that the child did not expect any invitation to build anything after he had handed me objects like toy bricks: without even looking at me, he would turn round again immediately and hurry off to fetch a new object.

In general, children of this age group willingly expand their range of means of communication by incorporating into this sphere actions they have learnt in the course of their joint activity with an adult. Object-directed/enactive means of communication do not of course do away with the need for expressive operations, but are combined with the latter: many acquire

an intensely emotional flavour, while others are accompanied by appeals, cries and loud noise, all aimed at attracting the adult's attention.

Object-directed/enactive means of communication considerably widen the range of children's opportunities for communication: the babies in this age group can now convey more accurately to other people the kind of interaction they are seeking. While observing operations involving facial expressions and gestures, researchers had to guess at their nature: whether they were a response to another person turning to the child, or an instance of the child trying to involve an adult in communication on his own initiative, turning to the adult deliberately. Resolving this question involved the comparison of many findings in each particular case. Many psychologists even now harbour serious doubts as to whether expressive operations and gestures are of an arbitrary or controlled nature. The duality of the function—the combination of communication and expression of emotion—is undeniable, yet this represents a further complication in any analysis of babies' behaviour. Object-directed/enactive means, unlike those involving facial expressions and gestures, are initiated by children and arbitrarily controlled by them, although not really in a deliberate way. They take shape in the course of practical interaction with people in the baby's environment: they are acquired and mastered by the baby.

The function of these new means of communication has new characteristics: operations involving facial expressions and gestures are *expressive,* while object-directed/enactive ones are *representational.* They provide as it were pictographs for joint activity desired by the child. Therein lies their advantage, for they enable the child to obtain the desired form of interaction from the adult more quickly and more precisely.

The need deliberately to cultivate in children pre-verbal prac-

tical communication arises fairly frequently. It can happen in a closed child-care establishment, but sometimes within the family as well. The reasons which make it imperative to engage in this special work on the formation of children's practical communication vary but they find expression in one and the same state of affairs: namely, a child wishes only to have interpersonal contacts with adults and is constantly looking for tenderness and caresses, while his object-directed activity is either underdeveloped or it occurs outside the context of interaction with adults. Children whose pre-verbal practical communication is not properly developed do not co-operate with adults, and their manipulative and communicative activity are not linked together, but quite separate.

In research carried out by S. Kornitskaya that was described earlier, children manifested a need for joint activity. Yet among the children taking part in the study there were two little girls, who did not have experience in co-operation with adults at the right time. Both of them had had to have a long stay in hospital immediately after they had reached the age of six months and the staff there did not have the time for games with their young patients. Usually it was the mother or father who used to spend time with little children in hospital, but these two little girls were orphans and no one came to visit them. When they were better they returned to the children's home and were drawn into a group of babies who were looked after by concerned and attentive staff. The little girls were already over ten months old when S. Kornitskaya encountered them. She noticed at once that their behaviour differed from that typical of the other children in the group. The little girls clung to the adults, deliberately tried to catch their eye and smiled at them ingratiatingly. When anyone held out a doll to them the little girls would look past it, all the time steadily watching the face of the adult though they did not take any notice of what

the adult was actually doing. They did not follow the way in which the adult was dressing the doll, nor did they try to imitate her actions. The children were content with the mere proximity of the adult caring for them and her attention, deriving pleasure from physical contact with her.

Special sessions were organised to introduce these girls to joint object-directed activity. It did not happen at once, but eventually these sessions began to have a positive effect on the children. They gradually began to take an interest in playing with toys, but only on their own: they would look the toys over, nibble at them, squeeze them and throw them around. The efforts on the part of the psychologists resulted in the girls eventually being prepared to exchange toys and to communicate their emotions to each other in connection with the events that were taking place in their immediate environment.

In this particular case the fact that these baby girls remained at the stage of situational-interpersonal communication that led to their lagging behind in the establishment of pre-verbal practical contacts, was a component of the fairly serious institutionalisation syndrome.

Many research studies have proved to us that a child's transition from situational-interpersonal to practical communication depends crucially on help from adults. To ensure that a child does not remain at the level of the first form of communication, the most important thing of all is to create conditions essential for him to master object-directed manipulations. Comfortable clothing, scope for free movement and the presence of toys and objects which would be safe for children and attractive to them in view of their convenient size, light weight, bright colours, and their variety of component parts—even such purely physical details in the child's environment help him to direct his attention to objects and busy himself with them. Yet a small child should not be left alone with toys all the time:

from time to time it is essential for an adult to be involved in his games as well. Watch his manipulations, express your opinion of them, and if necessary help a child reach something, or complete a difficult operation. The adult should also show children new ways of playing with familiar objects. Even if the child is not immediately able to imitate these, any attempt by him to do so should be greeted with approval. Every practical initiative of the little child should meet with moral support.

Parents are always busy. Yet, whenever there is the slightest chance, they should let their child play near them. Parents should try, at least from time to time, to respond to his gestures and exclamations with a smile or a few words, and then the child will feel his parents are taking an interest in what he is doing. If parents' efforts to rear their children progress properly, a child's interest in objects will grow apace. He will start trying to involve them in what he is doing all the time and he will ask more and more seldom to sit on his mother's or father's lap without engaging in any activity.

The second form of communication with adults is most important in children's mental and emotional development. It serves to overcome the one-sidedness of the child's earlier relationships with the people around him. His emotional ties with them are retained just as they were, except that they are consolidated and grow deeper. At this point, as throughout the rest of a child's life, his need for well-meaning attention shown him remains the core of his communication. After all, throughout their lives people are seeking recognition from those around them and constantly seeking their support.

It is at the stage of a child's pre-verbal communication that a typical level of initiative begins to emerge. So as to encourage a child's independence, it is important that adults should respond to his attempts to behave actively and help him

achieve his first victories and share in his joy at success. The urge on a child's part to show initiative can often seem to be plain stubbornness: in the second phase of their communication development small children shout and cry at the slightest pretext. This is understandable, because they are not yet able to implement their strong desires themselves, or quickly and exactly to "express" or "show" to adults what they need. A mother tries to guess: "D'you want a book? No... Perhaps it's a cup?" The child, however, makes an angry gesture to show there is no point in trying any more and then starts again pulling his mother off in some direction or other.

Similar episodes are to be observed within the framework of the second form of communication more and more frequently. The reasons for them are on the increase. Indeed, it is precisely at this stage that small children begin to walk; the child's terrain for action is now markedly larger than before, while his chances for coming to terms with all this remain far from perfect. Incidentally, it is also an adult who teaches a child to move about on two legs and he does this through communicating with the child. Walking along in an upright position might appear merely to be one of man's innate properties. Yet the child only has the potential to master this skill, which needs to be translated into reality, to be put into practice. Without demands from adults, without their help and support the child will not learn to walk. All Mowgli-children, for example, who have been discovered up to now used to run about on all fours; they were taught to walk in an upright position only with great difficulty, and not all of them were able to do so. After once learning to walk, children acquire the ability to satisfy their desire to learn independently and at the same time constantly to intensify that desire.

The conditions in which a child lives at such an early age gradually but steadily lead him to the point where it is essen-

tial for him to take another step forward in the development of his communication with other people and learn to talk to them. Then he will be able to reach agreement with adults with greater ease and precision in a variety of circumstances, in which up till now he has been growing cross and irritated. The logic of his forward development gradually brings the small child to the point where he needs to speak: a decisive event in the child's emotional and mental development takes place.

The Situational-Practical Form of Communication. The Verbal Stage (18 months to 3 years)

Indication of the fact that a child is entering the third phase of his communication development is to be found mainly in the emergence of active speech. Some children begin to talk immediately after the age of one year. Others still resort to gestures and facial expressions after the age of two, supplementing them with short expressive sounds. When they do eventually begin to talk, it emerges that both their hearing and their speech organs are perfectly normal, but some psychological factors were holding them back. If we take the statistical average, it emerges that more often than not a child addresses the people around him with his first speech utterances at approximately the age of eighteen months.

The upper limit of verbal situational-practical form of communication is equally variable. It is not uncommon for this still to be the predominant type of communication even just before a child goes to school. As a rule somewhere after the age of three contacts with adults begin to lose their situational character. Questions that are not directly linked with what he is doing begin to interest a child more and more. The be-

ginning of extra-situational conversations provide the borderline separating verbal situational-practical communication from higher forms of children's interaction with adults.

At first glance the need for pre-verbal and verbal-situational practical communication is similar in content: the child is striving after joint practical activity with an adult. He wants to assess his skills, deftness and in doing so bases his own assessments on the opinions of adults. They know and can do infinitely more than the child and are therefore capable of determining whether a small child is acting in the right way and to prompt him as to the right way of going about things. There is indeed much that is similar in the two stages of situational-practical communication, yet there also exist significant differences, which make it imperative to distinguish between them.

The main characteristic of the communicative need at the verbal level is that the adult provides the model, which the child copies. The small child does not now confine himself to waiting for help from adults. Earlier he used to demand that they help him in his inventions and activities undertaken on his own, without any plan or meaningful purpose. Now he wants to act like adults, following their example, using them as a model.

In so doing the child makes an important step forward and adults help him in this respect, too. Long, patient co-operation of the simplest kind and constant reference by adults to what children should do with various objects and how, finally bring children to the point where they understand that every object has its secrets and that he will not find them out by himself, for they are only known to adults and only with their help can he find the key for solving the secrets of the objects around him.

Boundless trust and love for adults bring forth, in a natural

way, the child's urge to be like them and to merit their praise. Emotional ties established as early as the first months of life constitute therefore the basis for the highly developed—verbal—form of practical co-operation. This form of co-operation is also influenced by the emergence of later practical relationships: a child reaches the point where he is no longer satisfied by the knowledge that adults love him "regardless', he wants to earn their praise through his diligent work aimed at mastering a new skill. This new aspect of co-operation between children and adults is also embodied in new motives.

The dominant motive is still a practical one; it is embodied first and foremost in the attributes of the adult which are revealed to the child in the course of joint activity, it undergoes a conspicuous and qualitative change. The adult is no longer just master of the objects the child sees around him and the child's helper as he manipulates these objects, but a model to be imitated and followed by the child. For his part the child now also needs to occupy a new position vis-à-vis the adult—most important of all for him now is to have his elders assess whether the actions he has carried out in accordance with the adults' model are correct or not. From this it follows that the practical motive changes not only for the adult but for the child as well. So that both old-established emotional ties and new practical motives should come into play, a certain amount of time is required. In most children this process is completed by the age of eighteen months, when a new type of co-operation evolves. Adults willingly perform the function of evaluating the child's achievements or that of correcting his possible mistakes. However, the importance of this new development should not be overestimated. As before, children still derive support from the selfless love shown to them by the people in their immediate environment. When they reach the level of verbal practical communication, they learn to make a clear distinc-

tion between adults' attitude to them as individuals and adults' attitude to the aptness of their actions. They are therefore not put out by criticism and many reproofs they simply ignore. Optimism and confidence in their ability to manipulate objects come naturally to children at this stage of verbal practical communication: hence the boldness that children show and their readiness to take risks. At this stage it is important to keep a careful eye on them, but within reasonable limits, of course. It is in the period now under discussion that the child's long-term level of initiation takes shape, which will be typical of him later on—and this represents one of the most valuable features of his personality. If adults restrict a child's freedom too much they can hold back the progress of his active behaviour and make him excessively timid and cautious.

The emergence of this new type of co-operation brings about a sharp change in the child's behaviour. Instead of becoming irritated and annoyed at the slightest provocation, he now behaves far more calmly. He observes and listens with heightened concentration, heeds attentively instructions from adults, tries to direct his behaviour towards reasonable goals and to follow the advice received.

Contacts with adults around him, as at the previous level of communication, are closely bound up with the child's object-directed actions: they arise as these actions are implemented and they are stimulated by these actions. Yet the nature of the child's manipulative activity has also undergone a substantial change. There is a marked drop in the number of non-specific actions to be observed, namely in those which are not in any way connected with the nature of objects manipulated, but which are constant and unchanging. As before, small children love to bang, make a noise, throw things on the floor and still occasionally put things in their mouths. The number of these simple operations is, however, considerably less than

before. More sophisticated actions are now appearing which take into account the physical properties of the objects—their shape, size and the material of which they are made. Most conspicuous of all, however, are the utterly new ways in which the child is starting to use objects: these depend not on the objects' physical properties but on the way it has come to be accepted in human society that the objects should be used. These actions we refer to as culturally determined.

Let us take a glass by way of an example. It is cylindrical in shape and if you place it on its side it is easy and convenient to roll it. Adults, however, do not roll glasses, they drink out of them. Or take another example. It is possible to scrape a little stick along the teeth of a comb, like a bow over strings; yet adults use combs to do their hair. Or take a newspaper; how easy and what fun it is to tear it up into little scraps! Smaller children do in fact do this, yet, when they are a little older, they notice that adults fold up the paper pages carefully, put them down with a certain side uppermost and then look at them most attentively. A child will try to do the same, to ask for his father's glasses, trace along the lines of print with his little finger and mutter things under his breath. It turns out that the same applies to all objects: each one of them needs to be used in a special, sometimes very sophisticated way.

A small child picks up a fork in his left hand and awkwardly prods at his plate with it, without managing to pick up anything. His mother watches his actions and then advises him gently and cautiously: "Put the fork in the other hand, love!" Then he is shown whereabouts to take hold of it, nearer the end of the handle, so that it will be easier to wield. "Well done!" Now she suggests the child tries to pierce a piece of potato with it. "It slipped out? Let's chase it! Come on, try again!" The lesson continues over many days, weeks and months. Successes alternate with failures. Yet the child does not abandon

his attempts. He has a constant model before his eyes—the actions of the adult. He has an ardent desire to carry out this operation as the adult does and a constant urge to earn praise. Therefore, the child continues to work away at the task.

He does so not only when together with the adult. Once they have taken in a model, children will practise for a long time, trying to carry out difficult techniques, while on their own or playing with their little friends. Their first success, however, fills them with an irrepressible desire to repeat the action again and again, to try the technique out in different ways—this way and that way—to vary it endlessly. Many little girls will put on dolls' nappies again and again, gradually becoming more and more dexterous. From time to time an elder sister or a grandmother might join in and make suggestions as to how the nappy might be laid out, the corners tucked in and the pin fastened so that the nappy should stay on firmly. The time will eventually come when the little girl, after she has grown up, will start instructing small children, who have yet to master this and many other skills: experience is passed on from one generation to the next.

Culturally-determined actions contain an element of theatrical art. They involve some role-playing (a small girl putting a nappy on a doll senses herself to be a "mamma" or a "Nanny"), and they have a framework of imaginary circumstances (the little girl takes her "daughter" out for a walk or goes out visiting with her). Such isolated episodes are linked together in short chains and then a sequence of such episodes takes shape: the little girl puts a nappy on her doll, then lays it in the pram and pushes it to and fro for a long time. Or, alternatively, she might pick it up, hum a lullaby and then rock it to and fro in her arms to send it to sleep. The child is aware that she is engaging in "make-believe" but she is absorbed in the process itself and derives great satisfaction from it.

So far though we have not yet touched upon the most important aspect of the second stage of practical communication, namely its verbal character, which distinguishes it from the first stage. Psychologists, teachers and parents attach enormous importance to the timely emergence of a child's speech and its proper development. Parents are always alarmed if their child takes a long time to start to speak: they take it as an indication of some defect in his health or, worse still, as a sign that he is mentally deficient. For anyone teaching a child, delay in this sphere constitutes a major difficulty: how can one reach an understanding with a child, who either does not understand words and cannot utter them himself? The task is a far from easy one! Many psychologists have come to the conclusion that a word, even if its pronunciation is distorted and if it is inserted into the clumsiest of phrases, constitutes a crucially important instrument for children's mental development. Words serve to designate sensory impressions, sort out the latter into integral complete objects and make it easier to shape *abstract notions* of the properties of objects encountered. Words serve as an instrument of thought, particularly higher forms of the latter, when it takes the form of logical operations, unfolding in complicated deliberations. Psychologists also know all too well that speech first takes shape in the course of a child's communication with the people around him, and it is constantly serving communication purposes. This gives us every right to categorise speech, even in the initial stages of its development, as a *communicative operation.*

Speech is the most precise, capacious and effective means of communication. While facial expressions expressed, and object-directed gestures represented, speech specifies the thought, the content, to be communicated. Being a conventional yet generally comprehensible *sign,* a word enables an individual quickly and clearly to convey to those around him information about

what he is feeling or thinking, to achieve mutual understanding and to share experience. It is precisely the task of establishing communicative contacts between people that brings speech into being. Initially it emerges in the course of communication and only afterwards does it begin to play a part in man's inner world.

Speech develops rather late, during a child's second year. In practical terms it stems from the child's development in a number of directions, of which communication is but one. For a word to denote something it has to draw on the child's sensory experience and his first visual generalisations.

"Puss-s-s", a child of a year will say about a cat, a fur collar, fleecy material or even a piece of cotton wool.

"Slee . . . slee", may well serve as an eighteen-month-old girl's name for a sock (she can put her foot into it), the sleeve of her jersey (an arm can be pushed into it) and a bread-ring, too, for she can put the bread-ring over her hand and succumb to rapturous delight at her own generalisation; this can also be referred to as "slee"!

Psychologists have traced the stages paving the way to the child's verbal function from the point of view of communication and have come to the conclusion that speech represents the logical result of the pre-verbal stages of the child's interaction with the adults around him. The way in which relationships develop between the child and the people around him at the time when he still cannot speak, determines when he starts to say something, whom he begins talking to, and what about.

A child is particularly sensitive to verbal input from adults—to the words they use when they communicate with him. This is determined by man's innate physiology, it is determined by the existence of appropriate specialised sections in the human brain. A child becomes transfixed on hearing speech sounds during the very first days of his life: he listens hard to them and

his chaotic movements stop, but while listening he does not look round for the person who is speaking. By the end of the first month words from their mother become one of the most effective signals that call forth a child's smile. At the age of six weeks a pattern becomes established which remains in force from then on: speech addressed by an adult to a child is a most powerful influence in his life; in a baby such speech gives rise to an "animation complex" of maximum intensity. In this respect speech is on a par with such signals as an adult's gaze, smile or stroking, all taken together. If an adult talks to a baby, a wide animated smile will quickly spread across his face; he will gurgle happily for a long time and his whole body—head and limbs—will move to and fro energetically. It is only during the actual seconds when he listens to the speech addressed to him that the baby concentrates and becomes transfixed as he directs his radiant gaze at the eyes of the adult concerned: a little smile flickers round his lips and occasionally he makes long melodious sounds trying not to drown the voice of the adult as he does so.

Between the ages of six months and a year children begin to take an interest in how speech is "made". While he sits on an adult's lap, a child will immediately turn round to him as soon as he starts to speak. Frowning in concentration, he will study closely the adult's lip movements, and try to look into his mouth. If the adult is close to the child, the child will touch his lips and stick his fingers into his mouth. Later this peering and touching will take place in conjunction with attempts on the child's part to make an utterance: he will move his lips slightly and without making a noise, and will whisper something incomprehensible. The child's behaviour changes immediately when he looks into the adult's eyes: he can laugh or become embarrassed, or nestle up against the adult's face. While he is observing the "speech-production", he seems as it were

to forget that it is after all a familiar person or even a close relative who is talking to him, because he is deeply absorbed in the process itself.

By the end of the first year the adult can already establish initial speech contacts with the small child. They are for the time being one-sided: it is only the adult who talks, while the child merely understands part of what is being said. Yet these contacts represent an important step forward in the communication between the adult and child. Now the baby can be encouraged and have things explained to him in words, and can be told what he must not do. Intonation and other non-verbal components of speech still play the dominant role, but gradually the patterns of individual words or whole sentences come to stand out more and more clearly for the child. His passive vocabulary builds up and rapidly grows. This range of words usually denotes the objects in his environment used most frequently of all, as well as the actions carried out with the latter.

The development of the child's active speech is a chapter all of its own. In his early months the baby utters many inarticulate and meaningless sounds. All pre-verbal vocalisations carry out an expressive function—they convey the state of the baby, his attitude to what is happening (joy, excitement, attention, anger, irritation). Among these it is worthwhile picking out cooing—short sounds that accompany concentration, which emerge earlier than other sounds. Then comes melodious gurgling and after the age of three months excited children will cry out: the intonation of their cries and exclamations gradually becomes more varied and intricate as the children grow older. By about six months children begin to babble—to repeat syllables and build increasingly long chains from the latter. Gradually babbling ousts earlier forms of pre-verbal vocalisations and becomes the predominant form of children's "speech-production", and so it continues until they finally learn to speak. The babbling ac-

companies children's actions and helps them to concentrate and convey to others the emotions they are experiencing. Even after active speech has emerged, babbling continues, for many months to come. Individual syllables are linked together in speech-like patterns and they acquire clear intonational colouring. More often than not a child indulges in this "babble-talk" while he is playing alone with objects. Often enough, however, he turns with a meaningless set of sounds to the adult, too. In this case the child is practising to perfect his speech intonations. Of course he does so without realising what he is doing. Yet the difficulty of putting together first sentences, even of finding one right word, which all of a sudden seems to have vanished, is such that it prevents the child from modelling other speech parameters. So for a while he allows himself to forget about the meaning of speech and concerns himself only with its expressiveness, with nuances of intonation. In this respect "babble-talk" is very similar to the behaviour of the musical novice who imitates the technique of a piano virtuoso when he has grown tired of his scales. He is not yet capable of playing a beautiful intricate piece but he is already experimenting with its expressive side. Chaotic noise is the result, but this does not make him downhearted: he sways to and fro on the piano-stool, knits his brows in concentration just like a real musician on the concert platform.

It is at the age of approximately ten months that the child utters his first word. Usually in its sound structure this resembles babbling: "Ma-ma .... Pa-pa .... Na-na", yet the word is associated with a particular person or thing and already denotes that person or thing. It is not until another year or two have passed that the conceptual content of children's words begins to resemble that of the words found in adult speech. Within the context of the practical form of communication, however, speech contacts, like practical ones, are of a situational character and

their meaning emerges from the context; it is precisely for this reason that such contacts do not disrupt the mutual understanding between child and adults. Each word is usually accompanied by a gesture; sentences come complete with expressive intonation which also facilitates mutual understanding between the partners. The mastering of active speech greatly enriches the communication between children and adults and gives rise to a rapid acceleration in children's emotional and mental development overall.

Another subject, which interested our research team, was difficulty in developing verbal functions which could not be explained by the absence of adult input. On average a child utters his first recognisable word at ten months, but there are cases when this event does not take place till a year later than that, or even two years. Eventually a child masters speech and then it emerges that both his hearing and his speech organs were perfectly all right all along and that his cognitive development was in keeping with the norm. What then were the reasons for the delay? A particular problem is presented by the reluctance of children to speak when they have a large passive vocabulary (they can accurately pick out "picture", "lamp", and wave their hand in the required direction when they are asked: "Where's Grandfather?") and they are repeating the sound pattern of a word after adults. Indeed they even enjoy speech games. The adult will ask of them that they say, "Pus-sy-cat", "puf-fa-train", etc. as they walk over to the object concerned. The small child will diligently repeat what is asked of him. He will be frowning one minute and then laughing the next together with the adult, but on his own initiative he will not be coming out with a single word. "What's that?" the adult will ask as he shows the child a flower. Silence. However, if the question is rephrased: "Where's the flower?", the child will stretch out his little finger in the right direction straightaway.

Two groups of children take a long time to embark upon

active speech. In one group, despite the age they have now reached, the children are still engaging in the situational-interpersonal form of communication with adults. The communication engaged in by the children of the second group is practical in character, yet the co-operation is at a primitive level: the child does not use the behaviour of the adult as a model to be imitated, but relies on his help in manipulations of a non-specific character or those which only take into account the physical properties of the objects concerned.

For children who have not progressed beyond the stage of interpersonal communication their emotional contacts with adults are quite separate from their practical contacts. They hardly look at an object held out to them and at times they look through it at the adult as it were. They try to scurry over onto the adult's knees, cuddle up to his or her chest, put their arms round the adult's neck and look into his or her eyes. The conversation made by the adult does not result in any lasting shift of their attention to his lips and, after a fleeting gaze at his moving mouth, the children again focus their gaze on his eyes. If the adult does not lift up a small child, the latter makes sure he achieves the closest contact possible, cuddling up to the adult, and either ignores whatever object may come his way or at most manipulates it in a half-hearted fashion.

In children who have only achieved this primitive type of co-operation with adults, emotional ties are interlinked with practical ones. Yet their failure this far to have come to view the adult as a model means that they do not pay attention to his actions and the interest they show in him is not consistent and any attempts (if they are made at all) to carry out similar actions will only be very short-lived. These children take in the speech movements of the adult's lips as an interesting phenomenon but they do not relate it to themselves. If it becomes necessary for them to inform the people around them of some-

thing, they will use other means—gestures, body language or exclamations. They will grow extremely irritated if their relatives fail to understand what they are after, yet they will persist in selecting non-verbal means of communication.

This means that children are slow in mastering active speech, not because there is anything wrong in regard to that particular aspect of their mental and emotional development. Delay in the appearance of speech communication is a component of a more general delay in the establishment of the new type of co-operation with adults. The most important aspect of this co-operation is, as we see it, the change in the child's view of the adult —the emergence in him of a desire and a readiness to imitate adults. This new attitude has taken root in the earlier forms of communication and has sprung from them. Three factors play a crucially important part in the child's communicative training for verbal communication. The first is the establishment of emotional contact with adults. The second is the gathering of experience of listening to the speech of adults, and the third is the organisation of practice for the children in the new type of co-operation with the people around them. These preconditions have been confirmed by research findings gleaned from formative experiments.

The importance of emotional contacts was brought out graphically in the research carried out by A. G. Ruzskaya. She organised sessions for fifteen children aged between nine and twelve months: she would carry them in her arms, caress them, talk to them and teach them to walk. The children quickly became attached to the psychologist and began to trust her and feel affection for her. The fifteen children in the control group saw the psychologist just as often, but she did not communicate with them. When these sessions of emotional communication were over, the researcher immediately began to teach all thirty children to call a large colourful toy duck "At-ta". The lessons

were conducted on an individual basis and soon the children could all respond to the question: "Where's 'At-ta'?" by pointing in the direction of the toy duck.

After these sessions A. G. Ruzskaya interrupted her meetings with the children and started them up again only after three months had elapsed. She placed the duck in a prominent position in the room and carried a child into the room afterwards. Five of the children from the experimental group, when they had seen the duck, clasped their hands in joyful excitement and, turning to the psychologist, called out: "At-ta!" In the control group only one of the children uttered the appropriate word and then only in a whisper, so that it was difficult to make out anything resembling the required model. Not content with this check, Ruzskaya then made a careful study of the way in which the passive and active vocabularies of the children developed in the next three months. She came to the conclusion that the children, with whom she had established some kind of emotional contact, imitated new words she said to them far more successfully, extended their passive vocabulary far more quickly and began to make active use of their newly-acquired words sooner than the children in the control group. Moreover, in the experimental group the rate at which the children's speech developed depended upon the level of the previously established emotional contact. The deeper the emotional ties between the child and the adult during the lessons in emotional communication that had taken place a long time before, the more rapid was the speech development.

These experiments make it possible to assume that the child's liking for adults makes him bolder and reduces the misgivings, preventing a child from uttering his first words when they are still only clumsy attempts at speech.

V. Vetrova, in her experiments, investigated what part children's listening to adult's speech plays in the development of

their speech. Perhaps it is enough just to turn on the radio or tape-recorder and to let them fill their ears to their heart's content with the music of words? The children being investigated were placed in their cot while Vetrova sat down next to them and switched on a tape-recorder that was concealed from the child's gaze behind a screen. For seven minutes approximately they were exposed to a reading of a fairy-tale—that was all each session involved. The experiment was repeated each day, and all in all each child took part in sixty sessions. During the first few experiments the children were bewildered and the unusual situation, in which they found themselves, made them lose their bearings. Soon they learnt to relax and after a few more sessions they discovered the direction from which the voices of the invisible characters came and began to look at the screen. Later on they began to listen to the conversations with ever-increasing interest. The children enjoyed the diversion and in the more absorbing moments they would look over to the psychologist.

After the thirtieth session the children achieved their first success in understanding the speech to which they were being exposed. By the end of the sessions they began actively to utter their first two or three words; more often than not these were "Dai" (give), "Na" (take) or "tik-tak" (tick-tock). After catching sight of the researcher in the corridor the children would smile and begin to babble. The children of the same age from another experimental group also listened to the same recording sixty times but on their own, without the researcher being present. They appeared to derive much less pleasure from it and the frequent repetitions did not help them achieve anything. The advance in their speech development was as slow as that found in the control group of children, who were not given the opportunity to listen to the fairy-tale at all. While listening to music when no adult was present, these children would doze.

They only became animated towards the end of the music, when the researcher used to come in. Thus it follows that listening to speech only proved beneficial to small children when there was an adult close at hand and they were able to incorporate the sounds of the words in the overall context of their communication with that adult.

Groups of children aged between twelve and eighteen months who were brought up in the family and attended crèches in the day-time were observed to enable the researcher to examine the role of co-operation aimed at mastery of an adult's actions as models to be imitated. It was revealed that the children participating in the experiment were aware of the link beween words and objects (they were able to point out dolls, books or toy lorries) and were able to repeat the words uttered by the adults during such sessions. None of the children however used speech actively.

After picking up an object that would be appealing to the child, such as a colourful wooden egg, the researcher would place it high up out of reach and say to the child, who was reaching out towards it: "I'll give you the toy, but you must tell me what it's called first: 'E-egg'!" The small children would get excited, jump up and down and then try to climb up onto the table to reach the desired object. Failure to do so would arouse their distress or anger. "Mine-mine-mine-mine . . . ", they would shout. Clenching and opening their little hands, the toddlers would make as if to take hold of the egg. They would do everything within their power to obtain it. If they turned to the adult by their side, it would only be so as to show him how badly they wanted to get their hands on the wooden egg and how irritated they were that the adult would not help them. While filled with despair, the toddler might notice that the adult was saying something to him, but his excitement would prevent him from understanding what the adult actually wanted of him. Many

children used to turn away from the adult and some deliberately walked out of the laboratory and on the following occasion resisted the researcher's efforts to take them along to participate in the experiment. Such was the state of affairs in experiments involving children who were only capable of a primitive level of co-operation with adults.

The picture was very different when the researcher was dealing with children, who were already aware of the fact that the behaviour of adults should be taken as a model. They also began by attempting to reach the toy on their own and felt hurt and frustrated when they failed. Fairly quickly, however, they abandoned these useless activities, turning to the adult and watching him attentively. They soon realised that they needed to name the object and to utter the necessary word audibly. Repeating various words after an adult was something they already knew how to do. So the child, feeling somewhat embarrassed, whispered something vaguely similar to the word-model. The researcher's standards were not high: as long as something in the child's utterance resembled the required sounds, he would receive the desired toy. Then a strange thing used to happen: no sooner had the child touched the wooden egg, i.e. laid his claim to the object duly received, than he gave it back. He insisted on putting the egg back into the researcher's hand and then would signify to the latter that it should be put back out of reach where it had come from. After that the child would repeat the name of the object more boldly and more loudly, and with each repetition more correctly—"E-EGG!" before bursting into peals of happy laughter. The new game turned out to be far more interesting for him than merely playing with the object itself.

After learning actively to utter his first word like this, each child would quickly master a second, third and subsequent ones, soon by-passing the stage of excitement and doing so quickly

and confidently. It looked as if the children had at last discovered for themselves that all things have a name and that these names had to be mastered and uttered to an adult each time some object or other was needed. From this followed the conclusion that the mastery of active speech was directly linked up with a new advance in the general type of co-operation between children and adults.

It therefore follows that, when working to develop their speech, it is necessary to build up and extend co-operation with children on the basis of earlier emotional contacts with them and by providing them with experience in listening to oral speech.

In research work carried out by the staff of our laboratory it has been found that deliberate organisation of verbal situational-practical communication has a positive effect upon children at an early age. An example of this is provided by the experimental research carried out by A. Bolbochanu, who was investigating the mental development of children between the age of 12 and 24 months. She set each of the fifty-four children participating in the study various tasks, in which they needed to recognise objects from its visual representations: for example, she placed before the child under observation three identical boxes, each with a picture on the lid representing a ball, flower and mushroom. The drawings were executed in a diagrammatic, stylised way. Then she showed the small child a plastic ball, which she then proceeded (without the child being able to see what she was doing) to conceal in one of the boxes, before suggesting: "Find the ball! It's in the box with a picture of a ball on it!" In previous experiments it had emerged that the child could point correctly to a named object when it was placed before him with four other objects. In this experiment, however, the child was called upon to identify a real object—the ball—from its two-dimensional representation, drastically reduced in scale. In other experiments the tasks set for the child

were made still more complex: black and white drawings were used instead of coloured ones, or a pair of boxes would be used—one showing the photograph of the familiar object and the other, the photograph of an unfamiliar one. At times the photograph of the ball would only show part of it rather than the whole ball.

In order to carry out intellectual tasks of the type described above, Soviet psychologists are agreed that the child needs to have mastered a special skill, that of internalised activity. He is required to grapple in his mind with generalised images of an object and his memories of it, to compare them, superimpose them one upon the other and supplement parts to make up the whole picture of the objects concerned. Only operations of this sort enable him to take in from pictures on cardboard his mother or a stacking pyramid. A child's capacity for such intellectual activity is of major importance for his subsequent intellectual development, the advance of his intellect, his ability to set himself a goal and to reach that goal, the unfolding of his creative imagination, and for many other vital skills.

Research findings show that children's capacity for internalised activity depends on the degree to which they communicate with adults. Small children, whose communication was of a predominantly situational-interpersonal type, could not cope with these tasks, while their peers, who had mastered situational-practical communication and in particular its verbal stage, succeeded in carrying them out. In addition, all children were found to cope more easily with tasks involving photographs of people than with those involving photographs of objects. It thus emerged that children learn first of all to manipulate images in their minds precisely in the course of communication.

For formative experiments, six toddlers from a children's home were selected in whose communication emotional contacts with adults were dominant and who proved incapable of carry-

ing out tasks involving internalised activity. The researcher conducted sessions with them on a daily basis aimed at promoting the development of verbal and practical communication with an adult. She would play various games with the child usually popular with children of the age in question (12-24 months). Together they would load a lorry with bricks, pull it along by a string into the far corner of the room and then unload it: they would undress a doll, bathe it, make up a bed for it and tuck it up for the night, or they might comb a doll's hair, dress it in outdoor clothes and then take it out for a walk. The researcher would show the child each game and the actions required, encouraging the small partner to repeat these and patiently looking out for opportunities when she might praise the child for showing initiative as he tried to use the toys and objects as first shown.

These sessions continued until the following indicators of verbal situational-practical communication were observed: attempts by the child to involve the adult in his activity, efforts to have his skills assessed by the adult and his disappointment at failure shared, and, most important of all, attempts by the child to follow examples set by the adult. The children required between twenty and twenty-six sessions before the transition to the level of verbal practical communication was achieved. Tests showed that at the time when this was achieved all the children began to carry out intellectual tasks significantly better than before, although the psychologist did not teach them to do so and did not use photographs or pictures in his experiments. By this stage the children could recognise objects and people from parts of photographs twenty times more successfully than before. The speed with which they learned to carry out intelectual tasks increased 12 or 14 times over and the number of practice runs they needed to this end was reduced between four and six-fold.

The children by now were not asking the adults to pick them up all the time. They welcomed offers of practical co-operation and enjoyed play sessions. They could concentrate on a goal—such as finding a ball—for a considerable time and did not abandon attempts to find it after the first setback, as had been the case before the sessions with the researcher. Their interest in the actions of the adult led to a change in the children's visual activity: they now followed attentively, and for a long time, the movements of the adult's hands and his movements involving objects, and they gazed at his facial expressions with concentration, relating the changes in these to the results they achieved. The children's object-directed activities soon became more specific in character and at the same time less closely associated with an individual object as they became part of a chain in a play sequence. Expressions of emotion became linked to events in the context of co-operation. Finally, there came the verbal breakthrough: the advance from vocalisations and disparate word-gestures (There!—That one!) to active utterances ("Let's play!", "Where's ball?" "Toy under ball").

In this way situational-practical communication at the verbal stage sets the children new tasks—the precise perception of objects, the verbal designation of the latter and the constant correlation of their actions with those of adults. Yet, in the course of this communication, optimal conditions are created for accomplishing yet further tasks. The presence and help of an adult, adult's participation in his activity and their support, all enable the child to achieve his first successes in his new activity.

Research carried out by the staff of our laboratory has brought out the need for deliberate efforts on the part of those engaged in child care to further the progress of small children on the threshold of practical communication, and also the enormous role played by adults in this process. The child becomes as it were more independent than he was before, he can play alone

for long periods and enjoys doing so. Yet the responsibility of parents and those engaged in child care at this stage is infinitely more important than hitherto. Their behaviour now serves as a model, on which the young child bases his own. The model provided by adults is, of course, refracted in the child's emergent consciousness: children make an involuntary selection of the actions there to be copied which is determined partly by the child's past experience, his individual characteristics and even by his innate potential, for example, the properties of his nervous system. Yet, all other things being equal, the example set by the adult acquires an importance, which it did not possess at earlier stages in the child's life.

It can be recommended to parents and those engaged in child care to create situations, in which the adult can satisfy the child's wishes only if the child is not crying or growing angry, but is listening attentively to instructions from his elders and imitating them. Two conditions should be observed; firstly, the activity taking place should always take the form of a game, since a child is more likely to succeed in what he is doing in a happy, uninhibited situation and possible failures will not frustrate him. Secondly, it is essential to give the child the opportunity to practice carrying out the new activity without hurrying him and leave him for some time to himself, if he should express wishes to that end.

Gradually adults will engage in more and more complex conversations with children; this is extremely useful. Discussions of instructive subjects will take place. At first small children will understand only part of what adults say to them and they will often let their attention wander, even if the discussion is being conducted with reference to pictures. Yet, thanks to conversations, which adults initiate, children will gradually acquire the habit of talking to those close to them about everything they know. Soon they themselves will begin to ask adults questions

and demand answers to the latter. Practical co-operation, typical of situational-practical forms of communication, gives way to more complex and profound "theoretical" co-operation—of an intellectual variety—to cognitive contacts in connection with the phenomena and processes to be observed in the child's environment.

So within the context of verbal practical communication the child's interaction with adults is built up on the basis of shared practical activity. Yet it differs substantially from practical communication at the previous level of development. Whereas co-operation at that earlier stage was confined to episodic help from an adult, while the small child was engaged in simple manipulations with objects, now he is concentrating entirely on what the adult, with whom he is interacting, is doing and he is trying to imitate that adult in everything. While orientating his behaviour towards adults the child comes up against the fact that things have properties that are not immediately visible and he gradually comes to master the culturally determined ways of using these objects.

The emergence of a new type of practical co-operation between a child and adults is difficult to overestimate. He now has a far fuller and more varied picture of the people around him and, what is far more important, he now sees them in a different light, outside the context of his own interests, as independent beings with unique qualities all of their own.

At the same time the child's view of objects in his environment is also changing. While the small child was simply manipulating with objects, he appreciated their most superficial physical properties—their size, shape, colour. When their culturally determined aspects began to open up before him, the child began to understand that objects were by no means as simple as it has appeared to him previously. He experiences the keen wish to understand them better. New and ever more

far-reaching cognitive interests emerge in the child. Children embark upon real investigation of the properties of the objects they encounter. Their actions are no longer straightforward manipulations but real inquisitive experiments. Children, however, glean little information through their own experiments. Then they begin to talk to adults and ask: "But, why . . . ?" At first the child does not listen very attentively to the answers given to him and keeps becoming absorbed once again in the manual investigation of the object of interest to him. Then comes the period when his cognitive interests literally spur him on to ask hundreds of questions in a single day of those around him, to all of which he demands a quick and precise reply. The moment when a child turns into a "Why-baby" heralds the end of the verbal stage of situational-practical communication and the onset of a new form of communication.

The verbal situational-practical communication within a child's overall mental and emotional development leads to the further advance and qualitative transformation of children's object-directed activity, to the emergence and development of speech. The mastery of speech enables children to advance beyond the confining framework of situational forms of communication to extrasituational contacts in connection with phenomena and objects, which are not immediately present and which sometimes are just invented, pure fantasy.

The Extrasituational-Cognitive Form of Communication (3-6 years)

The age range for the extrasituational-cognitive form of communication is most arbitrary. It is possible to encounter adults who have never mastered it and at the same time it can be ob-

served in three-year-old children. Often this form of communication occupies a dominant place among all types of social contact right up until the age of seven, when the child goes to school. The age range indicated here (3-6 years) merely indicates that at this period extrasituational-cognitive communication is the predominant form.

Yet other, more precise indicators of a psychological nature were singled out by our researchers which heralded the emergence of an extrasituational-cognitive communication and its replacement by a still more advanced form of communicative activity. We regard the time when insatiable curiosity becomes a distinctive feature of a child's behaviour as the starting-point of cognitive communication and the "Why-baby" age usually comes between three and four. The transition to the next form of communication—the extrasituational-interpersonal form—is characterised by a change in the subject-matter making up children's interests. At the age of three, and for some time afterwards, a child's attention is absorbed by the events taking place within the natural world, but by the age of six he is becoming increasingly interested in phenomena of his social environment and the links and relationships between these.

The new form of communicative activity does not occupy a leading place among the various types of activity engaged in by the pre-school child. Pride of place in pre-school childhood goes to play, not simple play sequences, but group play involving themes and role-playing. Numerous theoretical and experimental research projects undertaken by Soviet psychologists have confirmed that it is precisely in the context of such play that the personality of the pre-school child develops, that he masters new knowledge and skills and acquires new emotional and mental capacities. Yet play for children is not an end in itself—it is not a matter of indifference to a child what he plays at, with whom and, in the long run, why he is play-

ing. Through play a child actively explores the world around him, comes to find his bearings in the complexities of life and comes to define his attitude to everything going on around him.

In his research into the play of pre-school children the well-known Soviet psychologist D. B. Elconin, of the Vygotsky school, demonstrates that imagined situations and "pretend" actions with stand-in objects, substituted for real ones, enable the small child to find excellent ways out of difficult situations. He is anxious to take part in real grown-up affairs, but for that he does not have either the necessary knowledge or the physical strength. Moreover, adults are all the time keeping a close watch to see that he does not spoil anything or hurt himself which leads them to deny him access to various enticing objects. When engaged in play, however, the small child can, together with his friends, build an "aeroplane", set off for a drive in a "car", make his way through a jungle of burdocks, or start out on a whale-hunt armed with a harpoon in the large puddle behind his house. In this way, young children turn play into an instrument by means of which they satisfy their urge to participate in real—adult—life, without turning their back on the protection of adults or violating their taboos.

In their games young pre-school children find an outlet for their main endeavour—to explore in depth the things and natural phenomena around them. For this reason it is vitally important for them to reproduce as accurately as possible the physical setting for the events they are imagining: to move round chairs and cover them up with rugs so as to build a den or hide-out, to move boxes and toy bricks around to make an "explorer's base". They will climb up into trees that provide "mountains" to view the surrounding landscape through their "binoculars" made of fists held up to their eyes in a ring shape. Yet this play technique for discovery has its limitations: it does

not enable children to make adequate models for a whole host of puzzling phenomena that worry the head of a small child. How can he find out, through play, what the stars are made of, why the wind blows and why rivers flow? Yet Piaget—that wise child expert—demonstrated in his writings that pre-school children try to understand—no more, no less!—how the world began and how it is ordered, to fathom the nature of the mysterious links and connections within Nature and to capture the elusive essence of things. So it follows that the small child is anxious to understand the whole boundless world into which he came but a short while before.

Then the adults come to his aid. Their knowledge and the wealth of information they have on the most varied of subjects suddenly looms up before these children's gaze as a special treasure, like adults' practical knacks and skills that they discovered earlier. Children continue with their games. Their mastery of speech enables them, while they listen to a story or read books, to be carried far away in space or time, into impossible adventures. This is also a kind of play, but one of a rather special kind, since for the time being pre-school children can only indulge in it with the help of an adult, with his encouragement and support.

So adults now stand before the pre-school child in this new capacity and begin to encourage him to engage in communication of a cognitive nature, embarking on whole new subjects they had not contemplated before. Erudition and the minds of adults provide the main incentives that lead children to turn to them. The dominant motive for communication becomes a *cognitive* one.

Z. M. Boguslavskaya carried out research aimed at observing children in kindergartens. She invited them into a separate room on various pretexts—to prepare food for birds, to grind coffee beans with a hand-mill, to stick together little bags to

put coffee in, to help prepare toys for small children from the crèche section of the kindergarten. Later, in a relaxed situation of shared activity, Boguslavskaya began talking to each of the children. Gradually she played a less active part herself and left it to the children to take the initiative and they, with considerable enthusiasm, used the opportunity offered them. There was no end to the range of subjects they were prepared to talk about! This is not the place to conduct a detailed analysis of the subjects touched upon in the conversations or one of the content of the children's questions—these features of children's interests have been fairly closely studied by many psychologists. Let us pay attention instead to the communicative aspect of the information proffered by children and the discussions they had with adults.

The first questions children ask in such a way as if they did not expect adults to answer and as if they are simply just wondering out loud. "Why is that dog going over there?" a three-year-old girl muses on seeing a dog from the kindergarten window wandering in the direction of the doorway that leads up to her grandmother's flat. "Perhaps she's got a Granny up there too?" she wonders, this time turning to look at the researcher as she speaks. Without waiting for an answer, though, the small girl turns back to whatever she was doing earlier. A little later both questions and statements are uttered in such a way as to believe that an answer is expected. "You can probably grind stones as well in that coffee-grinder and make sand?" says a four-year-old boy as he looks inquiringly at the researcher. "The stones are very strong. They'll break the mill," comes the reply. The little boy readily agrees: "It's too small. If you made a mill like the table—no, as big as this room—then it could mill the stones as well." Then a conversation about stone-crushers starts up. From there the boy moves on to discussing where all the sand on the beach comes from, because there are not any stone-

crushers by the sea. The researcher begins to tell him about how the waves roll the little stones along and how after long years the water turns them into pebbles and sand. The child listens attentively, forgetting all about the work he was doing, he is completely absorbed in the pictures painted for him of the work of the forces of Nature which are being so vividly described by the adult. The coffee-grinder has been abandoned by this time. This is an example of more mature cognitive communication, the extrasituational nature of which comes clearly to the fore. The communication was triggered off by what the child had seen and been doing at a particular moment. Soon, however, it touched upon objects and phenomena far outside the situation of the contact between researcher and child and reached out to spheres unknown to the child.

A child might repeat a particularly topical question many times, elaborate it, specify its implications in his efforts to achieve clarity and confidence in the serious nature of the information received from an adult. A question might occur to a child in conversation with his friends, but he will store it up in his memory and put it to an authoritative adult later on. He will even formulate it cunningly so that it sounds like his invention. "Perhaps you think that there's a driver sitting up in the sputnik and he's steering?" asks a little boy of four and a half. "Well there isn't! There's no one up there, no one at all! They send the sputnik up from the Earth, and then it just flies along on its own." The child's tone is triumphant, yet in his eyes the question is still lurking: surely there can't really be no driver in the sputnik? The researcher asks: "And where did you find all that out from?" "Ira told me," the boy replies candidly, pointing to his young play-mate.

In this way an adult, impressively armed with all his knowledge, provides ever more far-reaching and interesting encouragement to children to engage in cognitive communication.

His virtues as a source of reliable information and the questions discussed with him acquire an extrasituational character.

Careful observation and specially devised detailed experiments have shown that after the age of three there comes the stage when children move forward rapidly and achieve considerable success in their overall emotional and mental development. Particularly valuable during this period are the achievements of pre-school children in the sphere of fantasy and imagination.

It emerged that, during this period, small children are fascinated by devising imaginary characters, invent unusual human beings or animals, and think up all sorts of adventures for them. A boy aged two and a half, for example, while having a bath suddenly picked out the figure of a dog in the pattern of drops on the wall tiles. "Mamma, look, there's a dog," he said quietly. The mother decided to make the most of the opportunity so as help her child behave in a more orderly way, so she said to her son: "If you splash about and spill water all over the place, the dog'll get you." After making this threat she went out of the room for a minute. When she returned, she saw that the child was pale and cowering in the furthest corner of the bath and looking at the "dog" transfixed with fear. The mother was taken by surprise by her son's vivid imagination, which had not struck her before. Or again, a small girl of three years and ten months picked out "Grandad" in the pattern formed by cracks in the ceiling overhead. Before going to sleep she began to talk to him, complained about incidents when she had been hurt or offended and boasted of her success: the trouble was that her parents never had the time to talk to her. The little girl concealed the "Grandad" from her parents and only told her beloved Grandmother about him, when she came to stay in the little girl's house.

In most cases imaginative games remain just that for the child, a diversion or entertainment, and he does not believe

that the invented animals or people are real. Yet the vivid nature of these imaginary people do a good deal to foster the children's intellectual potential, enabling them to live not merely in the present, but also in the future, not merely in their own house but also in distant countries and worlds, and communicate not only with ordinary but also with unusual people and animals.

Thus within the framework of extrasituational-interpersonal communication there takes shape theoretical and intellectual co-operation between children and adults that is far more profound and advanced than the active co-operation within the framework of situational-practical communication, even at its verbal stage. Yet what constitutes the content of the communicative need at this new level? During the phase of practical communication, the child needed the adult's participation in his activity: he wanted him to involve himself in his activities as organiser and as a model for the behaviour required. Detailed analysis of the behaviour of pre-school children led researchers to conclude that at the level of cognitive communication the driving force behind the children's activity is their *need for respect* from their elders.

In our observations we encountered again and again one trait that was most characteristic of children at the beginning of the pre-school period and of those at its middle stage—namely heightened sensitivity to the attitudes adopted towards them by adults. In the experiments carried out adults deliberately varied their behaviour: sometimes they showed indifference to the children, while at other times they praised them for any achievement, however small, or they scolded them for blunders. The researcher suggested to the child, for instance, that he should cut out with scissors a flower that was drawn on thin cardboard, trying to follow the shape carefully. During some of the experiments the researcher occasionally glanced at

the child's work, but did not say anything and then, in the end, calmly commented: "Well then, now you can go." During other experiments she expressed her approval of what the child was doing ten times in as many minutes: "Well done! You're cutting out nice and carefully," and then she would look at the work and thank the child warmly for his diligence. In a third set of experiments she reproached the child ten times in ten minutes, saying: "Look, here you cut off the petal of the flower, and here you left too much edge." At the end of the experiment the child was given encouragement but spoken to as someone who had failed in his task: "Never mind, next time you'll be more careful and neater, and it'll come out better. Don't worry!"

In the experiments described here and in other similar situations pre-school children did not worry or become downhearted when engaged in situational-practical communication. Realising straightaway that cutting things out neatly was a fiddly business, they themselves picked out simpler tasks and did what they wanted to do. On the other hand pre-school children who had progressed as far as the extrasituational-cognitive form of communication all manifested heightened emotional responsiveness. Praise led the children to jump, clap their hands in delight and some even kissed the adult researcher whom they hardly knew. Their delight was more than what the circumstances called for. Yet their reactions to the reproaches were of an extreme nature as well; they argued and quarrelled: "Your scissors are crooked!" "Your scissors are blunt and they won't cut straight!" Some of them cried and others turned their back on the researcher and went away without a moment's hesitation. However, what the children found hardest to take was indifference shown them by the adult: they became tense and worried, and the bolder among them tried again and again to break through the barrier of the adults' indifference

asking endless questions. These features of behaviour were not so much individual ones as those typical of an age group, namely of the majority of the pre-school children aged between four and five.

We put forward the suggestion that this heightened sensitivity in children, who had progressed as far as the extrasituational-cognitive form of communication, was not mere coincidence. It appears to reflect some important changes in children's communicative need. Let us remember that in the first six months of this life a child was not able to take in reprimands or scolding and reacted to them as if they were just more signs of the adult's attention paid to him. This behaviour stemmed naturally from the need in babies under six months for friendly attention. Hence hyperreactivity in children during the first part of the pre-school period must be bound up with the nature of their need for communication. The above considerations led us to conclude that a typical feature for the extrasituational-cognitive form of communication is the child's striving after respect from the adults with whom he communicates. Children are eager for praise and do not want to reconcile themselves to criticism: they see criticism—as indeed indifference, too—as a personal insult.

The question may then arise as to why a child's need for respect is reflected in cognitive motives. Respect and cognition... what is the link between the two? Let us recall that the content of a child's communicative need depends upon the kind of help a child seeks from adults, what they have to do in order to satisfy their most acute needs at the particular stage of development in question. Children half-way through the pre-school period are a prey to thousands of questions, which they can only solve by recourse to their contacts with their parents or teachers. Yet a child can only obtain the information he needs in those cases when an adult ponders upon a

mystery *with* him, treating it as something really important, not just something to be shrugged off. The situation is complicated still further by the fact that, during the early stages of intellectual (theoretical) co-operaion with adults, a child feels very unsure of himself. For the first time he is entering the world of intellectual reasoning and is bereft of his usual support gleaned from sense data, from visual stimuli. Co-operation with adults in this new sphere appears possible to him only if the latter do not make fun of him, but recognise his right to engage in discussion. The only convincing indication of that recognition for children at this stage of their life is praise.

Over and again we were to observe that, when the dominant motive for communication for a pre-school child was cognitive, he was easily hurt and disposed to affective behaviour. The converse was also true, namely that touchy children based their communication with adults mainly on cognitive motives. Another factor was that the vulnerability of children half way through the pre-school period was not just a feature to be observed in certain individuals but a phenomenon to be associated with the entire age group. It, of course, manifests itself in different ways in different children, but at a specific stage of development it is to be observed in almost all of them. Affective outbursts are particularly frequent in children halfway through the pre-school period, since among younger children within this category most are still at the stage of situational-practical communication.

An acute need for respect can in young children be at the root of serious behavioral problems and anti-social actions perpetrated by them: they begin to become extremely stubborn or prone to tears, or to avoid contact with other people. A conflict situation arises which psychologists refer to as the "three-year-old crisis". As a rule, staff in kindergartens notice the emergence of new abilities in children at this time, their rapid

intellectual and personal development as they grow older, while the parents complain that a formerly calm and well-balanced child has changed very suddenly and that life has become one long argument: the child has become awkward and stubborn! Who is right? It turns out that both sides are! When in the presence of people he does not know well or even of his respected kindergarten teacher, whom he respects but with whom he has a less close relationship, the child does not give expression to his sense of being insulted and to his disappointment. At home, on the other hand, he vents his negative emotions on his parents and grandparents with two-fold energy.

The urge for independence, persistence in pursuing his goals and the flowering of imagination—all these are the wonderful fruits of the emotional and mental development of pre-school children within the framework of extrasituational-cognitive communication. Adult's failure to show due respect for children's new abilities deeply wounds small children, hurts them and leads them to behave in a unco-operative, negative way. The distance between the young child and his teacher means that he cannot express his protest in any direct or open way. The more violent the affective outburst which adult relatives have to cope with afterwards, since a child does not wish to stand on ceremony with them!

So the situation takes shape in which the child-care establishment sees the achievements and successes of the crisis stage of development (which we choose to refer to as the "positive objective crisis") while at home the problems and conflicts surface, which stem from the fact that adult relatives are not keeping pace with the progress of their pre-school children (these we refer to as the "negative subjective crisis"). The difference in the child's behaviour at home and in the kindergarten can give rise to a good number of misunderstandings.

The need for respect from his elders, when it is satisfied,

enables a child to assess more accurately his worth in the world, to recognise those aspects of the attitude shown to him by the people around him which he was either unaware of before or of which he only had a blurred, vague picture.

Pride of place among the *means* of communication at the stage of the extrasituational-cognitive form of communication has of course to be attributed to speech which enables a child to go outside the limits of a particular situation, to overcome the limits of time and space, and to break forth into the wide open spaces where he can contemplate the hidden essence of things and phenomena. To a significant degree the form of communication now under discussion takes place as a conversation between the child and the adult on cognitive subjects that help the child to broaden his horizons.

While talking with pre-school children, our team of researchers noted that their favourite subjects were those concerned with the world of Nature and the things within the child's environment. Small boys can talk day after day about various brands of motor car: they love to fiddle with the mechanisms of their clockwork toys and to discuss with adults how clocks, telephones and television sets are made. Little girls do not show so much interest in machines and things mechanical, their interests are more colourful and varied. Both small boys and small girls, however, try to find their bearings with regard to the reasons why day follows night, and to learn from where natural phenomena stem, such as the wind, storms and river currents. Nearly seventy-five per cent of their questions and statements are concerned with events taking place in the world of Nature and how things are made.

At the beginning of the extrasituational-cognitive communication period children's conversations are without fail rooted in visual stimuli: as they look at a picture, they begin to ask what is depicted in it; after picking up an object they begin

to identify the material out of which it is made. It is only a good many months later that the pre-school child learns to conduct conversations with adults about things that are not in any way linked with tangible phenomena, which the child can see or touch. In other words, it is only gradually that speech becomes more and more extrasituational. The logic of the development of this quality is not purely an inner logic: it would be wrong to expect that after learning to speak a child would begin "of himself" to speak better and better and to use this instrument of communication more and more skilfully. The real state of affairs is much more complicated. The child's interaction with the people around him not only gives rise to the emergence of speech but also shapes its subsequent development. The most useful thing that parents and teachers can do to develop a pre-school child's speech is not to organise special lessons and exercises aimed at helping him master new words and construct more complex sentences. The main thing is to engage in interesting conversations with the child on new subjects, to open up new spheres of life to him, new realms of knowledge. It is then that the child, encouraged to try and find out all about unfamiliar concepts, will himself start looking for new words and building more complex sentences.

We established this for certain by analysing the speech of these children while they were grappling with various intellectual tasks based on those used in Piaget's experiments. Does a child, for instance, understand that the quantity of a substance does not change when its shape changes? Halfway through the pre-school period children think that a round ball of plasticine is bigger than the sausage out of which it has been made. They maintain that there is "more" water in a tall narrow glass than in a wide jar, although the water has just been poured from the jar into the glass before their very eyes.

"Big", "more"—what vague, imprecise words those are! They embrace the ideas "tall", "broad" and "spacious", and much else besides. It reflects the child's as yet unclear notion of the properties of the mass of a pliable substance, or of the volume of liquid. Then the adult begins to discuss this phenomenon with the child:

"How can that be?" the adult asks. "When we made a ball out of the sausage, nobody had broken any bits off the sausage? So why had it got smaller? What will happen if we turn the ball into a sausage again? According to what you say, there will be more plasticine again. But where will it come from?"

The child becomes absorbed in thought. He kneads the lump of plasticine and once again rolls it out discussing various possible variations.

"Perhaps, when it's in a ball, the plasticine is light and in the sausage it's been squashed flat? Oh no! it probably crawls into itself and then climbs out again afterwards!"

After thinking the matter over for a long time in his mind, the child finds an apt solution: "The lump is not just big—it's fat and short. The sausage is narrow and long. And the plasticine in both of them is the same."

So it comes about that, while using the help of the adult, children replace imprecise words that can have more than one meaning with new terms and make the transition from simple phrases to more complex ones ("big lump" to "fat and short"). Conversations with adults help the child to become more sensitive to words and to search for the precise terms and phraseological constructions. The need to convey his opinion or his knowledge to another person and to bring his interpretation of something into line with adults' assessment of it compels children to work at perfecting their speech. The development of a child's speech in its turn extends his opportunities for communication and makes it possible for him to discuss more

complex subjects. So, in a continuing upward spiral, progress is to be observed in both the advance of children's communication and the perfection of their speech.

The emergence of extrasituational-cognitive communication is most important in the emotional and mental development of the pre-school child. Now for the first time he enters into theoretical, intellectual co-operation with adults. His non-physical experience will now become particularly rich, and will no longer be so inextricably linked with his practical cognition of reality, as was the case previously. The young child's thoughts will now be directed towards the inner essence of the objects and phenomena he encounters, while his imagination will be able to transport him into the past and future. Relying on his imagination, the pre-school child tries to attain even the unattainable, which just might be within reach... His intellectual effort is now internalised within his emergent consciousness. At the same time it is constantly being projected outwards, when the child turns to the adult and seeks support from him and stimulation for further progress.

Ye. Smirnova set up an experiment with children aimed at fostering their extrasituational-cognitive communication. She presented the children with a new game.

"I have fifteen animals. Now listen carefully to what I'm going to tell you about them. Remember what kind of character each animal has. Then I shall spread them out on the floor and you will go and hunt them. Don't touch the nice animals, but just pick them up and take them over to the beautiful Animal City. Frighten the nasty animals with a noise, make them run away into the other corner of the room. If by mistake you take a nasty animal to Animal City, he will bite them all in there, and he might even eat someone. Here's a gun," she said, handing the first child a wooden rattle.

Smirnova then selected animals, which were not familiar

to the children—an anteater, sloth, bat—and made up a story about each one of them, describing its nature and presenting it as a nice or nasty in the course of the story. She repeated this "hunting game" a week later and then after a further month had elapsed, without repeating the details relating to the characters of the animals. In this way she managed to check whether the children had taken in the information she had given them and how reliable their memory of it was. The results were poorest with pre-school children who had not progressed beyond the situational-practical form of communication. One of the children from this particular group, Vanya (aged three years and eight months) seized the gun, began to "aim" and "shoot" left, right and centre, without listening to what the adult was telling him. His behaviour was typical of this group of children.

"What d'you mean this one's nice?!" he asked in astonishment, unable to believe what the researcher was saying about the anteater. "He looks like a bear and bears are dangerous—Granny's told me so."

"No," objected the researcher. "He only looks frightening, but his mouth is small and narrow: all he can take hold of in it is tiny ants."

Meanwhile Vanya was not paying much attention to her. Picking up the picture, he began to pull it across the table, muttering away to himself: "He's nasty!" Vanya declared a week later about the anteater. Then a month later still he said: "He's a kind of bear with a long nose and he's very dangerous."

Smirnova organised special sessions with the children like Vanya, so as to make their communication less situational and to render them less eager to seize hold of things, feel them over, move them around and manipulate them. She concentrated their attention on their understanding of where things came from, how they were made, what they were for, their purpose

and their importance. In the course of a month this group of pre-school children grew noticeably more serious and better at concentrating: they had learnt to listen to adults better and to retain new information effectively. The only thing that impeded their progress was their touchiness. If one mistake they had made was pointed out to them, they took it fairly calmly. Yet after the second criticism they would usually frown, look away from the person talking to them, and some of them stopped answering any questions or they tried to go away.

The part played by adults in establishing theoretical co-operation with children is enormous. The most important thing the adult relative has to provide for the child is the respect that he shows for the child's intellectual needs, and the gentle attitude he shows to fruits of the child's mental exertions. If a mother, elder brother or teacher listened seriously to a pre-school child—that was already half the battle. If they took an interest and became involved in joint work—that was providing the vital key to further progress.

Children discover, within themselves and in other people as well, abilities that they never even suspected they had. Their ability to assess themselves and things outside themselves, becomes increasingly sophisticated: they now take into account new human qualities—ones that are really important, such as erudition, insight, resourcefulness and thoughtfulness. This is why a child becomes so touchy at this stage. He responds to affection and care from his elders as before. Joint practical activity also continues. But now, at the same time, the child feels within himself a new potential, an intellectual one, and he reacts keenly to the tone of the "theoretical co-operation" with the people around him.

Adults can, however, without meaning to, strike a serious blow at the pre-school child's psychological progress. An off-hand attitude from his elders with regard to a child's first timid

sallies into the sphere of abstract knowledge can have a disastrous effect upon him.

"What hippopotamuses? How do I know why they have such big mouths? You'd be better off thinking about your own mouth when you're eating, because you keep spilling crumbs onto your dress!" a mother scolds her daughter. Not only did the daughter have no answer to her question, but she was not taken seriously and thus she was insulted by this. On another occasion she was laughed at for her painstaking efforts to count the spots on a ladybird's back. On a third occasion adults would not join in conversation with her about how a little yellow flower had turned into a fluffy puffball overnight. It is in circumstances such as these that a child's emergent interest in the big wide world turns sour and flags. Without support from adults the young child cannot find his bearings within his environment. As a result he is held up at the level of development where the attitude to his real environment is a utilitarian one, and concentrates only on those things which are directly relevant to his own life. His cognitive interests become narrow and start to fade. The child's inquisitiveness does not then develop as it should.

First and foremost, parents must become really aware of how important the conversations with their child really are. That should then lead them to take the next step, to find opportunities for having such conversations. Best of all is to set aside special time for such conversation, albeit short periods when they are not engaged in any other kind of activity. If one makes the effort it soon becomes clear that it is not impossible to find 15-20 minutes now and again, sitting on the sofa or a bench in the garden or during a bus journey, that can be devoted to such conversation regardless of how busy the day might seem. Particularly intimate and rewarding in this respect are the last few minutes before a small child goes to sleep.

"Did you learn a lot of interesting new things today?" you might ask your son.

"Did you discover anything exciting today at the kindergarten?" you might ask your daughter.

How many surprising things you will hear by way of answers to such questions! About the grass with long legs, about the smart cat wearing white glasses and gloves, about the car with a "cold in the head" and a "cough"... Listen to what the child has to say, much of it at sixes and sevens, and before you there will open up a world that is fresh and wonderful, so inviting and so exciting, that has yet to be explored. While working with the child in this way, the adult will discover a great deal for himself as well.

The extrasituational-cognitive form of communication between children and adults helps children to extend far into the distance the horizons of the world that they can explore, it enables them to have their first glimpse of the links between phenomena and to penetrate some essential features of those phenomena. Children are able to polish and perfect their thought processes, to nurture their powers of imagination and to enrich their world of ideas, to raise their level of awareness. The child's intellectual life acquires new content: it places children in a new relationship to the people around them, a relationship that is more subtle and delicate. "Theoretical" co-operation with adult relatives is a source of pride for children, pride in their own potential, and it calls forth in them an acute need for respect from other people.

Co-operation with adults that takes place within the framework of this communication is initially of a very simple variety, but it constitutes an immeasurably important milestone on the long road of meaningful intellectual contacts that the child will experience in his life-time with the human race. The thoughts and feelings of small children at this stage in childhood are of

interest to everyone. They are reflected most vividly of all in the drawings of small children. International exhibitions of such drawings are held several times a year in various countries; besides, children are sometimes asked to draw pictures right on the spot. Everyone who has been to see them, whether they are drawings made on asphalt, slates, pieces of cardboard or ordinary paper, knows the striking subtlety and insight to be found in these children's vision of the delights of life, the warmth of loving hands and the beauty of familiar landscapes, and how deeply they are effected by the fate of others, of their Earth on which they live. Bright clear colours, whimsical shapes and marvellous animals and flowers people these children's artwork.

Yet discovering the world of objects and physical phenomena soon ceases to satisfy children's interests. They become more and more intrigued by what is happening in the world of people. Interest in social phenomena begins when a child learns how man makes many objects he sees around. He learns that they are the product of man's mind and hands, and that they have been made for people to use. From this stems the natural urge to know who makes various things and how, and then to find out what these various people are like. The subject matter of children's conversations with adults gradually changes. Instead of things and objects it is now Man, his life, his activity and his Personality that are the cenrtal focus of the child's interest. When questions concerning individuals come to the forefront of the child's attention, this marks the completion of the extrasituational-cognitive phase of communicative development and the transition to the next stage, the highest form of communication in pre-school childhood—the extrasituational-interpersonal form of communication.

The Extrasituational-Interpersonal Form of Communication (6-7 years)

When analysing the interaction of children with adults within the family and in child-care establishments, our research team came to the conclusion that the highest form of communicative activity during pre-school childhood was extrasituational-interpersonal communication. The time at which this emerges cannot be determined exactly. All we can say on the basis of our observations is that it is found more frequently among children at the top of the pre-school range than at any previous stage of childhood. This does not, however, in any way imply that every child is bound to reach that level.

It should be mentioned that the extrasituational-interpersonal form of communication represents a truly high level of communicative activity and for this reason it is often attained even by children by the age of seven.

The complexity of contacts between a child and adults within the framework of this form of communication explains the relatively rare emergence of this form in children at this stage. Those of them who are capable of such communication are characterised, first and foremost, by an urge to achieve *mutual understanding and shared experience* with other people. The new *content* of the communicative need finds expression in the fact that the child no longer insists on his being right, and does not always demand praise as children at the previous phase of development. Then the child was longing for respect and only wanted positive assessments, while any other kind did not suit him, made him feel hurt or even refuse to engage in co-operation with the adults in question any more. Now, at this higher stage, what is most important of all for children is to know *how to reach a correct* understanding and assessment of what is

happening all around them. Of course, they are put out when they make mistakes and criticism from an adult grieves them. Yet the child at this stage listens to criticism attentively: he willingly agrees to introduce corrections into his work, to change his opinion or his attitude to a subject under discussion. He derives his most profound satisfaction from achieving *shared* views and assessment with adults. When his position coincides with that adopted by his elders, the pre-school child becomes sure that he is right. Agreement with an adult provides proof for the child that what he was thinking or doing was correct.

Change in the content of children's need for communication is not difficult to single out when observing the behaviour of pre-school children. A child does not hurry to argue with an adult, however unusual the information might be that the latter had imparted to him. Children sensitively tune into the adult's wave-length and try initially to understand their elders better and to establish the reason why they hold a particular opinion, rather than some other. It is only after that that they review their own position. This is how a new style of relationships emerged in the experiments conducted by Ye. Smirnova. The researcher showed children pretty pictures and began talking about animals of a well-known variety—about wolves, bears, foxes, and rabbits, deliberately endowing them with characters that were the opposite of those traditionally associated with them.

"Look, here's the wolf. He's kind: he doesn't squash the grass, he only runs on the paths and he loves flowers. Beware of the bunnies though, they're nasty creatures: they eat up the cabbages and carrots in the garden and do nasty things to people."

A three-year-old child at the stage of situational-practical communication only listens with half an ear to what is being said and hurries to pick up the picture: he and his fellows will

frown at the picture of the wolf, say: "Gr-rr-rr!", bare their teeth and bend their fingers to make them look like animal's claws. Many of such children begin to "frighten" the other children with the picture. Some, almost before the adult has finished talking, will refute what she says: "That's not right! Mummy read me a story where the wolf was nasty, he ate the Granny!" Naturally, a week later these children will repeat confidently: "The wolf's nasty and the rabbit's kind." The same response will be repeated after the interval of a month.

A child who already engages in extrasituational-cognitive communication can remember an adult's words reliably and then repeat them accurately, but only if the researcher's story captures his interest. If that is not the case, he starts asking all sorts of questions not connected directly with what is being said: "Where did you get the pictures from? Why is the wolf frowning? Perhaps his children are hungry, or Grandfather's dead? Where do the rabbits live? I don't think they build nests, do they? Perhaps they build a house or hide in a lair?" Then the child would of course not remember anything properly and would get tied up in knots, when trying to repeat what he had been told.

Children, who have reached the stage of extrasituational-interpersonal communication, actively try to understand what the adult says to them; they look for explanations of the unusual information, not rejecting it out of hand: "Wolves in general are hunters," said a six-year-old boy after listening to the information about the sharp-toothed flower-lover. "*But this one* here, *your* wolf—he really looks friendly. Even his tail's sort of fluffy." The child attempts to match up what he has just heard with what he knew previously and to find an explanation for the researcher's words.

This attitude to the words of an adult helps children to remember reliably, and for a long time, what they have heard

from their elders, and to reproduce new information correctly a week or a month later.

The need for mutual understanding and shared experience presupposes, as an essential prerequisite, the child's inner readiness to try and understand what another person is thinking and feeling. A child tries hard to meet him halfway, sometimes even at the price of renouncing his former ideas, but more often by reworking and taking in things which he had not had time previously to find out or understand.

A pre-school child, who has begun to engage in extrasituational-interpersonal communication, sets store as before by recognition from the people around him and takes pleasure in their praise. However, they adopt a far more sober approach to shortcomings in their own ability to resolve complex problems of life. It is precisely this reasonable approach to the limitations of their own experience and knowledge which makes children keep on finding out what grown-ups think about things.

A typical way in which the pre-school child's need for mutual understanding and shared experience manifests itself is conversation, in the course of which a child returns again and again to one and the same question, seeks clarification of the adult's opinion, tries to dovetail the utterances by various of his elders on the subject in question and then to make them tally with his own understanding of the subject. He is ready to acknowledge his own incompetence, but only if there is adequate grounds for doing so. Here is an example of such a discussion with seven-year-old Tanya:

"You say that the wolf's kind. He's useful, is he?"

"The wolf in the wood is like a medical orderly. He doesn't touch strong tough animals. For them he isn't dangerous."

"But in hospital the orderly helps the old people and the sick ones. Everything must be different with the animals. . ."

"Of course," agrees the researcher. "You know that in the wood there aren't any hospitals for old animals."

"But in the town people look after sick animals. Our neighbour took her cat to the doctor, who gave him a special powder for his cold. That means that the wolf isn't a proper medical orderly. But there must be different wolves. There must be nice ones as well, like yours in the picture over there. He," the little girl pauses, trying to find something nice to say, "he's a soft one, perhaps... I think that a wolf like that wouldn't have hurt Little Red Riding Hood."

This need to communicate with adults is important not only in the case of judgements, opinions, but also of feelings. Usually understanding and experience are closely interconnected. Consequently, mutual understanding emerges as the intellectual reflection of shared experience. Shared experience is the emotional reflection of mutual understanding.

The *dominant motive,* in which pre-school children's need for mutual understanding and shared experience assumes tangible form, is one of an *interpersonal* character. In this respect this form of communication now under discussion is comparable to the first, the earliest form. This similarity to be observed at this particular stage means that the process of the child's social development has completed its first circle, so to speak, and now that the first circle is complete, the second part of the spiral begins. The difference between these forms of communication lies in the fact that the one is *situational* and the other *extra-situational.* However, the difference in the degree to which they are situational is later reflected in the enormous differences in the depth of the contacts achieved, the richness of their content and the extent of their influence on the overall mental and emotional development of the child. The situational character of primitive interpersonal communication engaged in by the small baby shaped the imprecise, vague perception he had of

the adult and himself, the limited framework for his analysis of the input from people around him, and the primitive ways in which he expressed his attitude to them through the language of facial expressions.

Interpersonal motives for communication also occupy a leading place within the context of the highest form of communicative activity, but they acquire an extrasituational character and appear quite different. The adult appears to the child in a wider range of roles, and in the fullness of all his various talents, distinctive characteristics and life experience. For the pre-school child he is now no longer just an individual or an abstract personality, but a concrete social figure, a member of society, a citizen of his country and of his times. The extrasituational character of the interpersonal motive lies in the fact that the child reflects not merely the attributes of the adult which immediately confront him in a particular situation. A child's elders have now acquired in his eyes their own independent existence. For the pre-school child details from the life of adults which do not effect him in any way acquire vital importance and enable the child to recreate the image of a person with a rich palette of concrete details.

The extrasituational-interpersonal communication adds to the importance of another range of the adult's attributes in the eyes of the pre-school child. He provides a model which the child feels he ought to imitate. For the first time this range assumes clear contours at the level of verbal situational-practical communication. Mention was made of this in conjunction with the child's mastery of culturally-determined means of using objects and active speech. Now the adult becomes a model for the child also in an immeasurably more complex sphere of the child's mental and emotional life—in the moral sphere—as he builds up relationships with the people around him. Only his elders know the paths and routes to take in the as yet unexplored

big wide world. The pre-school child's efforts to follow his elders' example comes to provide the basis for his receptiveness towards input from his teachers or those caring for him, and contributes to his quick and enduring grasp of instructions from adults.

The new view of adults facilitates the further development of children's play and the appearance of higher levels of play for the pre-school child. The child now pays less attention to the things involved in the reality he is trying to reproduce. He is interested first and foremost by the complex relationships which take shape between people within the family and at work. From his communication with an adult a child draws material for his games. He also keenly observes all the nuances of his elders' behaviour when they quarrel with each other.

A six-year-old girl plays "kindergarten" at home. Frowning sternly, she arranges her dolls in a row. A floppy doll cannot stand up for long and falls over first to one side, then the other.

"Get into line, get into line!" shouts the little girl at her in a threatening way. "No, you have no idea how to stand, it's impossible to get any sense into you. You'll have to go without your walk."

"Why don't you give her helping hand," advises the small girl's mother. "All the others can walk, but she hasn't learnt how yet. Help her. When you were little and not very steady on your legs, I used to lead you by the hand."

"Mamma, there are a lot of children in the group," answers Lena in a stern voice. "I can't help every one of them." In the tone of that remark the little girl's mother hears echoes of a familiar voice, that belonging to a young, but strict, kindergarten teacher.

If you listen to your child rocking its doll to sleep or feeding its teddy bear or reading to a kitten, you will see how much he has taken over from the adults around him, how much he

repeats of what he hears from you. You will be happy about the times when you were patient and gentle, and you will feel ashamed of the times when you were in a hurry and grew irritated, or treated your child unfairly.

The most important aspect of the interpersonal motives for communication is that through them certain professional qualities of his elders are revealed to the child for the first time. Of crucial importance is the fact that the child begins to perceive the adult as a teacher and gradually comes to see himself as a pupil.

Situational-practical communication, even at the verbal level, is bound up first and foremost with practical co-operation between children and the adult. Extrasituational-cognitive communication facilitates children's grasp of theoretical material. Yet within the context of that communication there are two inherent obstacles: the child's spontaneous interest in, and affective additude to, success.

The content of a task, and the actual process of establishing links between various parts of the material involved, interest children who have progressed as far as extrasituational-cognitive communication. The more interesting the task the more easily they are able to solve it. Children already engaging in this form of communication carry out unattractive tasks less well. Difficulties and mistakes of theirs that give rise to criticism from the adult represent a major obstacle in their activity. Their acute need for praise and respect from the adult makes them easily hurt: to a perfectly friendly instruction they react with tears, quarrels, even refusals to carry on with the activity, which of course impedes them in their search for success.

Yet, when *interpersonal* motives for communication are dominant, the adult becomes the centre of the situation. Children pay particular attention to his words and actions. They see their mistakes through his eyes, as it were, and this is why they

are not hurt when he criticises them and are willing to introduce the necessary changes into their activity. Tuning into the same wave-length as the adult enables the children, who have progressed to extrasituational-interpersonal communication, to understand without difficulty that in a learning situation the special function of the adult is that of teacher. Consequently they, the children, should behave, when with him, as is expected of pupils: they should look and listen attentively, remember what they are told, and try to do everything as well as they possibly can and put right any slips they may have made.

Elder children within the pre-school range are able to give more detailed and precise representation, not only of the attributes of adults but also of their own. Information about themselves is now accessible to them which they could not imagine before. They are justified in taking pride in what they have found out and what they have learnt: with keen interest they listen to stories about themselves, or to their parents as they read extracts from their records of their child's progress. In conjunction with their own fresh memories, the words of their relatives help the children to preserve the bright colours of their childhood impressions and to remember, for the rest of their lives, incidents from their life-story which they then, in their turn, will tell to their own small children.

However, if a teacher or parent punishes a child frequently and harshly for his slips and errors, and does not make enough of his success, children can lose their natural optimism and become worried and mistrustful.

Most pre-school children are able to assess accurately and remember the results of their activity and, on the basis of these results, make reasonable predictions regarding their future activity. Some children make a habit of boastfully exaggerating their achievements.. There are, however, others who manifest again and again a lack of confidence in themselves that is most

untypical of the pre-school child. These young pessimists do not expect success in advance; on the contrary, they do down any possible results. On the basis of our observations it would seem that it is precisely parental opinion, constantly voiced to the child or made known to other people in the child's presence, that explains such a child's attitude to himself. When analysing the results of our conversations with the parents of young pessimists it was quite clear that the majority of them considered their child's progress as average or even less than average, although the children progressed quite well. Instead of praising their children, these parents would confine themselves to simply establishing their child's merits, they had recourse to physical punishment, criticised the child in front of other people, and considered him inferior to other children of his age. They remembered clearly their child's misdemeanours, and just ignored him when he behaved well. Parents of children from two other groups behaved quite differently. Their attitude to their child was sensitive, they paid attention to his achievements all the time, went out of their way to praise his success and encourage him, and to reassure him in moments of failure.

Thus it can be seen how the pre-school child, himself being the motive of the adult's interpersonal communication, forms his own attitude to himself on this basis, on this firm foundation as it were. Parents and teachers need constantly to bear this in mind.

Older pre-school children, in comparison with the children of all younger age-groups, are the most sensible and independent. Yet they too are, for all intents and purposes, only taking their first steps in the world. They are becoming aware for the first time of social life with its special laws. They are confronted by new tasks: they need to master the rules of behaviour adhered to in the world of men, to understand the

laws and relationships holding sway in this sphere, to grasp clearly basic rights and duties, and to learn to control their deeds and actions.

When coping with these new problems, children's reference to the model of adults' behaviour and their assessments provides the basis for their grasp of moral norms, their interpretation of their duty and responsibility towards the people around them. Communication with adults on interpersonal subjects therefore acquires pre-eminent importance for these children and provides a compass as they flounder in the stormy, uncharted ocean of life. Older pre-school children converse with adults mainly about what goes on between people and ask persistent questions in order to clarify how they should behave: they ponder both over their own actions and also those of other people.

The small children taking part in our research projects used any excuse to converse with the adult to hand. Just as babies read any input from adults as a demonstration of their attention and concern, so older pre-school children made of any activity a starting-point for a sincere discussion of questions, which are of great interest to them, about "what is good, and what is bad". The researcher might set up some kind of game, for instance. The children, making the most of every convenient opportunity, try to impart things to the adult: "I'm learning to read. I've already learnt the letter 'O', I can find it on the sign outside the Food Shop. It's time for me to be getting ready for school, isn't it?" "That's right," agrees the researcher as she continues with the game. "Yesterday I gave up my seat in the bus to an old man," the child goes on. "He was standing there with a stick, it was very hard for him. Our teacher at the kindergarten tells us we have to respect old people. But when we went on an outing, some of the children sat on passengers' knees, when they were said they could, but

some of the passengers were ill and old, probably about thirty! I wouldn't do that."

When the researcher deliberately tried to engage the children in conversation, they manifested unusually keen interest. The child listened to the adult with interest and of their own accord came out with excited narratives. He could not be distracted from the conversation by the appeals of his friends, or someone bouncing a ball outside under the window. When evening came, the children begged their parents to wait till the end of the conversation and asked the researcher to continue it the following day. One boy used to ask hopefully every time: "When are we going to talk again about all sorts of people and how we ought to behave?"

Conversations on interpersonal topics provide the child with his main source of information about moral standards and assessments of real actions that he and other people have carried out. For this reason extrasituational-interpersonal communication provides a major channel for developmental input from adults bringing up the child, and through them for the whole of society to bring its influence to bear on the individual child.

Speech occupies a pre-eminent position in the context of this form of communication. This stems from the fact that the child's interaction with adults takes place through conversations, discussions and arguments. The increasing complexity of the subjects discussed, the as yet hidden nature of a child's thoughts compel him to extend and diversify his vocabulary, to master more and more new grammatical constructions. The desire to express nuances of his opinions obliges a child to choose his words carefully in his search for the most precise expressions and to consider synonyms.

"Igor's nice," says a small boy of his elder brother. "No, not just nice: he's clever and kind, yes, and strong as well. Some-

times he's stronger than Papa, he's just great!" (All this about a brother aged a mere 10!)

The child's passive vocabulary is also growing. Now, without difficulty, he is able to understand the text of children's books. The description of an enchanted wood, underwater kingdom is something that a pre-school child can easily imagine and bring to life for himself: he enjoys depicting such things in his drawings. The rapid development of his speech gives rise to new kinds of children's games—they create make-believe stories or fairy-tales with certain subjects particularly dear to them. They re-enact relationships between people and reproduce their characters. The implications of links within the social world interest them now more than anything else and greatly excite them. The abstract nature of many moral categories also provides impetus for their speech development. Courage, modesty, dignity—how hard it is for them to penetrate the essential meaning of such moral virtues! To do that, after starting out from a concrete example they need to probe the inner essence of the virtue. The only adequate means for carrying out this task is provided by words and the interesting many-faceted concepts made up of the latter. This is why extrasituational-interpersonal communication furthers the advancement of a child's speech and in itself depends on the degree to which a child has mastered the verbal function.

In so far as extrasituational-interpersonal communication represents a new step in communicative activity, it is logical to assume that it creates conditions conducive to the achievement of the best possible results in other aspects of mental and emotional development, too.

It is no secret that sometimes children come to school inadequately prepared and then they study unwillingly and only progress in acquiring knowledge with difficulty. On the other hand, the children, who were well-prepared start learning

quickly, easily adapt to school work and the new activities involved and successfully master the rudiments of the disciplines taught. What does it mean, though—to prepare a child for school? How should we set about this task?

Various psychologists come forward with ideas on this subject that do not always coincide. Some consider that the most important thing is to impart to the child the wish to learn. Others underline the importance of intellectual training. They recommend that the pre-school child should be taught in advance to read, write and count, so as to make easier his first steps in mastering the wisdom on offer at school. A third group points, and with every justification, too, to the importance of pre-school children learning to control their behaviour—to listen with concentration, to work hard at solving difficult problems, to hold in check their urge to be side-tracked. We would maintain that being ready for school implies a whole group of skills some of which are more important than others. The core of a child's readiness for school is the *level of development of communication with adults* that he has achieved. This element of central importance determines both the child's intellectual development and his ability to regulate his own behaviour spontaneously, as well as his wish to learn and his ability to concentrate his attention on the teacher's explanations without being distracted. The next part of this chapter will therefore deal with the mechanisms, through which this particular form of communication shapes the mental and emotional development of the pre-school child in other directions.

The essence of a child's intellectual development is the emergence of the capacity for internalised action—"in the mind". The child does not necessarily need to know a great deal or to have mastered up-to-the-minute information on Nature and society. Yet, if he is able to devise various projects and plans, to analyse and compare the latter without resorting to any

practical experiments, but merely by speculating as to how they will turn out, then he will be able to solve the most difficult tasks quickly and correctly and, most important of all, to grasp the essence of phenomena in the world around him and how they interrelate. This is why Aristotle and other thinkers of the Ancient World were infinitely more clever than the schoolboy of today, although a contemporary twelve-year-old knows things about the globe, space, electricity, laws of social development, physiology and botany that those sages of two thousand years ago could never have dreamt about. Yet the ancient philosophers, who did not have access to today's information, had mastered the most modern instrument of all for learning about the world and themselves—the capacity to think.

Contemporary psychologists maintain that the most important thing to do to help prepare children for school and to enable them successfully to master the school syllabus is to foster their capacity for "internalised action". That is the direction in which the adult should be leading the child; it should constitute the teacher's main aim, for once children have mastered "internalised action", they can quickly encompass any kind of new knowledge. They will see more in a textbook and they will hear more in the words of the teacher than is actually there, because what they master will trigger off their own creative discoveries. Attempts to measure children's capacity for "internalised action" have shown that this capacity does indeed represent the main path for their intellectual development. It has been demonstrated that this capacity is also bound up with their ability to mould their own behaviour at will. For a child to set himself a goal and pursue it single-mindedly, to be able to ignore other stimuli, which are attractive in themselves yet distract him from the work in hand, requires that his capacity for "internalised action" be well developed. Devising a goal and specifying its implications in-

volve internalised action, too: a previously established goal of this sort shapes the whole of the child's behaviour.

Until very recently psychologists have only measured the level of a child's "internalised action", whereas almost nothing has been done to identify the factors conducive to its emergence. Why is this level high in some children and low in others? Even in teenagers of 16 and 17 individual differences in this respect can be very large: before solving a problem, some of these young people will have to carry out some sort of practical task to help them envisage all the implications, while others will be able to devise the most complex of constructions in their minds, such as "but if . . . then. . ."

While examining communication, we came across facts that show how contacts with other people constantly demand "internalised action" from children. Even a *baby* has to learn how to recognise his mother. To that end he has to be able to compare what he perceives with what he can remember. At an early age children learn to recognise their mother and other adult relatives in photographs: here, too, 'internalised action" comes into play at a high level. What about conversations at the level of extrasituational-interpersonal communication? Incredibly complicated "internalised action" is required here. The child needs to be able, in his mind's eye, to see beyond the particular facts abstract laws of justice, honour and nobility; and, in addition, the particular facts that he is talking about with an adult have occurred long ago or have been gleaned from a story, books or films.

In the course of extrasituational-interpersonal communication favourable conditions are created for the pre-school child to progress towards new higher levels of "internalised action". The importance of this form of communication in the life of a child intensifies his need for "internalised action", and the interest and support shown him by an adult help him to master

new types of such action. Consequently, pre-school children's progress in "internalised action" furthers the advancement of their intellectual activity in general, in their thought processes and in their control over their own behaviour.

First of all, methods were elaborated for determining how a child's "internalised action" developed (G. Kapchelya). A series of 36 tasks was devised, involving first of all varying degrees of symbolisation according to a special sequence (first came actual objects—the easiest task, then coloured drawings of these objects, then their stylised diagrams and finally words alone). The second set of variations were those implying the degree to which the action itself was lent "material" form (starting with actual movement of objects by hand and the perusal of drawings in the easier tasks and advancing as far as operations "in the mind" with no visual references). The third set concerned the actual equipment used in the tasks: children were presented with seriation tasks (arranging dolls in a row according to height), with a maze (from which they had to find the way out without landing in any of the five dead ends), and finally they were asked to recognise whole objects after being shown merely parts of them. During one of the tasks, for example, the researcher said to the little girl: "Guess what kind of animal is hidden behind this screen! Through the three holes in the screen I can see a big round eye, a hard wing without feathers and five feet." No objects or drawings were shown to the little girl. After thinking for a moment she replied: "It's probably a sparrow... But why five feet? No, a dragon-fly... but with hard wings? Ah, now I know! It's a beetle! They have big eyes, hard wings, but six legs... one is probably hidden behind the screen." The answer was correct and showed that the little girl was capable of solving a difficult task: all she had heard was the description of something she had not been able to see and that she had been

unable to touch: the information offered her meant that she had had to determine the whole by piecing together fragments. All these operations the little girl performed in her mind, trying to link in her thoughts the three characteristics described with a variety of flying creatures, stereotyped images of which she had stored in her head.

None of the children were able to cope with all the 36 tasks. Even the most intelligent could only manage 24, although it was clear that many of them were trying very hard. The tasks which proved most difficult were those which required the children to operate exclusively "in the mind": only a few of the children from among the young subjects coped, and for the most part these were tasks where they were called upon to guess the whole on the basis of certain parts presented to them. Some of the children solved tasks involving diagrams and models of objects, but these represented the "ceiling" reached by the pre-school children; these findings match those recorded by other authors in this field.

Yet in these experiments the children did not only solve intellectual tasks: the experiments also served to demonstrate the form of communication that the children had achieved. The children were given the opportunity to play with the adult, to look at picture-books, and to talk about themselves and other people. On the basis of each child's behaviour, i.e. from his actions, words, the manifestations of his feelings and the depth of his attentiveness, it was not difficult to determine, which form of communication with the adult he preferred. It emerged that both indices were closely bound up with each other: the children, who had progressed as far as a higher form of communication, were also those capable of a level of "internalised action". This fact serves to support our hypothesis that the capacity for "internalised action" is shaped in the course of the child's communicative activity.

Extremely backward children aged six were selected for our experiments—those who had not progressed beyond situational-practical communication at the verbal level. The objective was to help them advance as far as extrasituational forms of communication.

It was necessary to begin with contacts at the level of interaction that the children had already mastered (in this case that of practical co-operation), and then gradually make the communication more complex by introducing new actions into it and giving enthusiastic support to even the most timid attempts by the children to respond to these and later to their first initiative in the desired direction. The most important thing was to let the children enjoy the sweet taste of respect and the pleasure derived from judgements and assessments made together with adults. When children begin to acquire the relevant needs, these assume tangible form as cognitive and interpersonal motives. They gradually come to find and discover the means necessary for implementing extrasituational contacts, and an adult will always be at their side if needed.

If the hypothesis is correct, the progress to the higher level of communication will also further the child's capacity for "internalised action". This was indeed borne out in practice. On average the psychologist had to conduct twenty sessions with each of the children before their need for mutual understanding and shared experience took shape and they made the transition from situational-practical to extrasituational-interpersonal communication. Then he repeated with them the experiments used for charting a child's level of "internalised action" and compared the new findings with those recorded the first time, before the sessions concerned with communication. The change in the levels was striking! In the first experiment the children had been able to cope with two or three easy tasks: those in which it was possible to move actual

articles with their hands (taking a wooden beetle through a maze, for example, or lining up five dolls according to height). In the final experiment they were able to solve nine or ten of the tasks, which were incomparably more difficult—those involving drawings or even diagrams.

By way of an example let us report on the progress made by a little girl named Ira, aged 6 years and 4 months. It was difficult to persuade her to come and get to know a new person; she finally agreed after long efforts at persuasion on the part of her teacher. At the first encounter she behaved modestly and tried hard. During the experiments to identify the level of communication she had reached it was established that in her case this was the situational-practical variety. Ira came over embarrassed, was taken aback by the many difficulties she encountered, and was often distracted. It was only after she had been given toys that she began to shed her inhibitions and engage in wide-scale activity. At this juncture she also began turning to the researcher at frequent intervals, asking: "Can I?. . ." and trying to involve her in the game she had launched into. During conversations about books, and particularly those on interpersonal subjects, the little girl kept silent, looked worried and shy, and furtively kept trying to "escape" back to the dolls. No extrasituational contacts were to be observed on her part during the experiments. She only came out with five phrases in response to questions from the researcher, and these were statements about the dolls' dresses (such as, for example, "The tall dolly's got a blue dress"). As for tasks involving "internalised action", she only solved three of these, all of which involved manipulating actual objects, but even so she found working her way through the maze extremely difficult. The level of her "internalised action" was far from high.

Twenty-two sessions were organised between the initial and final tests. During these Ira, who had quickly got used to the

psychologist, was gradually and with difficulty drawn into conversations. The researcher always started with a game, but after a few minutes began asking the little girl questions that were first cognitive and later on increasingly interpersonal. Only after their fifth meeting did Ira manifest attention to the words of the adult, by actually interrupting her game: sometimes she even moved her lips soundlessly, so as to understand the psychologist better. After eight encounters the little girl expressed an opinion for the first time: she came out with an assessment of her friend's action. She found it difficult to select the necessary words, she tripped over her words in her haste to speak, spoke inconsistently and twice stopped in her tracks, and only after noticing the genuine interest on the part of the adult in what she was saying, did she continue with the conversation. When the adult researcher confirmed her opinion as his own ("Yes, Natasha should have said Sorry, although she had not spilt the drink on you on purpose"), the little girl was both embarrassed and made happy. It was clear that no one had ever listened to her like that before or tried so hard to understand her. She walked away in pensive mood. After that encounter she hurried impatiently to the next session. She had prepared herself for it in advance, and even before she had come through the door she came out with the announcement she had had ready. "A little white kitten... with a grey tail.... Mamma doesn't want it, but Granny in the village says we can keep it... I'll feed it, but Mamma..." The researcher gave Ira a chair and began to specify the details in the incident: "Well, so you have found a kitten and want to take it home, but Mamma says No. Well, that's the way it is sometimes. You're hoping to feed it out in the yard for another month, and then you'll go to the village to visit your grandmother and you'll take it out there with you. Isn't that right?"

With each meeting Ira's contact with the psychologist deepened; she was constantly gaining a clearer insight into the happiness to be gleaned from being listened to and allowed to have one's say, from being understood, and appreciating the disappointment resulting from failures to reach agreement with an elder friend. Her whole experience of this new life of the mind and emotions taught her to listen, to concentrate, to persevere and to work as hard as she could. At the same time Ira, like all the other pupils, was mastering the ability to set herself a goal, pursue it tenaciously and to mould her behaviour so as to bring her goal nearer to completion.

After these special sessions Ira used to enjoy talking to the researcher on a variety of subjects. She proved attentive and responsive, and she willingly asked questions, and was quick to supply answers to the adult. She used to talk about herself, ask the researcher about how he was getting on, and showed considerable inquisitiveness in relation to what other children of her age were achieving. In the experiment aimed at diagnosing the form of communication the children were using she gave expression to her attitudes to her relatives and friends. She looked at the new dolls with interest but then turned straight back to the conversation she had been having. When it came to the tests used to assess her "internalised action", young Ira solved nine problems, of which the two most difficult ones demanded of her that she cope with visual representations of objects rather than the objects themselves.

Work such as this to foster extrasituational-interpersonal communication naturally served to develop children's minds and spontaneity. The mechanism of the influence exerted by communication as described above served to nurture the preschool children's capacity for "internalised action" which initially took shape within the context of communication and then spread to all other spheres of the child's mental and emotional life.

The abstract and extrasituational nature of interpersonal conversations with adults forces the pre-school child constantly to practise intellectual operations without being distracted by far more eye-catching situational forms. The vital importance of such conversations, and the adult's participation in them, help the children to cope with the difficulties inherent in "internalised action" and to make significant progress in overcoming these difficulties. It is because of this that children's interpersonal, motivational, intellectual and volitional readiness for school learning takes shape in the context of extrasituational-interpersonal communication: these different aspects of readiness taken together testify to the child's overall ability to make the transition to a new dominant activity—study.

The mastery of extrasituational-interpersonal communication furthers the general mental and emotional progress of the pre-school child and prepares him for the transition to a new level of activity. Now he can occupy a completely new place in the world of people: a place that involves important obligations, not merely to parents and teachers but also to society, and that at the same time bestows upon him considerable rights—those to independence, to the organisation of his own activity, and to personal relationships with friends and teachers.

It is worth underlining once again that the emergence of extrasituational-interpersonal communication is not something that can be observed in all children. It demands very special conditions and circumstances. It is no use hoping that finally everything will "turn out all right". Adults have a tremendous responsibility in all this: it is easiest and most natural for parents to provide the child with this essential help within the family framework. It should also be forthcoming from those looking after small children in child-care establishments. A good number of children receive such help from adults outside their family home or children's home—from neighbours, parents'

friends and everyone who is sincerely interested in the child in question.

The most important thing is to nurture the child's need for mutual understanding and shared experience. For this it is necessary to let the child *experience a sharing of views and attitudes with an adult*—someone whom he loves and views as an authority. Otherwise the child will simply not know that there exists on this Earth such a thing as spiritual unity with a person whom he respects and who respects the child in turn! Without knowledge of it the child cannot begin striving for such unity. Our experience makes it clear that it is not easy for adults to penetrate properly the thoughts and emotions of the young child. It is a task that demands dedication and a good deal of emotional energy, it demands that the adult concerned forget for a time about all other preoccupations and remain in a self-contained world face to face with the child. It is only through the child's awkward, fragmentary words that his thoughts, and the laboursome working of his soul are revealed to us. Forget for a moment that a pre-school child is now only aged six, and that the emotions which overwhelm him are not linked with anything of national importance. You would do better to remember that for him these emotions are just as vital as adults' worries are to them. Who if not you is going to help the child? and when if not now?

Unfortunately, adults, and even mothers, are not always capable of expending the amount of nervous energy and patience required. This is why the psychologists in our research team so quickly won the firm affection of the children they worked with: indeed, they came along for the special purpose of talking to them, to have a "heart to heart"! Even an initially low-level need for communication provides an adequate base for children within six or eight weeks to learn to appreciate the sweet pleasure of emotional ties with an adult.

Intimate conversations should not take place too often: this would be tremendously tiring both for the adult and the child. In normal circumstances it is enough to talk to children on personal matters approximately once a week, but without counting the minutes. However, an unexpected important event should force you to drop everything—for example, if the child has been insulted or experienced a triumph, if he has had to face up to a moral dilemma or is anxious to communicate with you immediately. It is best of all if the initiator of such conversations be the child, and the starting point be provided by an event which he has experienced. It is important to make sure that the child does not resign from making independent decisions.

Then, of course, it is vital never to confuse extrasituational-interpersonal communication and lectures. Communication means dialogue, and is beneficial only if the children concerned play an active part in it. It is better still if on their own initiative they ask questions to clarify points of meaning or even argue, so that by the end of the discussion they establish some opinion and formulate it with your help.

The following indicators will show you that a child is capable of extrasituational-interpersonal communication: he will begin actively to seek out opportunities to have conversations with you, the adult, on interpersonal subjects; with unmistakable interest he will make sure that conversations, initiated by you, continue; his arguments will be aimed at clarification, verification and elucidation of whether he has understood a point correctly; your disagreement with him will disappoint him, of course, but will not make him renounce the activity he was engaged in, but rather encourage him to go back to that work with the intention of perfecting the result, and finally the child will begin acquiring the ability and the inclination to discuss abstract subjects.

If these indicators are lacking, do not lose heart! Go back a step—to conversations on cognitive subjects. Refer the child to visual stimuli—toys, illustrations. Without hurrying, move steadily forward to extrasituational-interpersonal communication and you are sure to achieve success in the end!

The adult reveals to the child the realities of communication, gives him the chance to taste its unique pleasures and nurtures his appetite for it. It is hard work requiring no small amount of emotional effort, which a good number of parents choose to avoid and, by way of a substitute, to buy toys, books and organise various entertainments. Yet it is precisely within the family that it is simpler and easier to help children to solve new communicative tasks than anywhere else. Trust and love for parents help children to grasp propositions that are initially difficult and beyond their understanding. Great also is the reward for those adults who take upon themselves the search for new contacts with children: after all *mutual* understanding just as *shared* experience originally conceal within themselves the promise of a response and a search from the other partner involved—two things that are precious beyond words.

* * *

The development of children's communication with adults involves a sequence of forms of communicative activity. Each new form does not render invalid the one that went before, but enriches children's potential, although of course it leads to a certain amount of restructuring of earlier formations. For instance, after mastering extrasituational-interpersonal communication, the pre-school child still can become absorbed in toys, but in a far more intelligent and diversified way than a three-year-old child capable only of practical communication. A pre-school child from the top of that age bracket tenderly

embraces his mother, but his caresses are more diversified and rich in nuances than those of a baby.

While considering the mechanism inherent in the replacement of one form of communication by another, we concluded that it represents a particular instance of the dialectical interaction between *form* and *content*. For a time the form of communication that has become established corresponds to the level of the child's development, which in its turn depends upon the level of his overall achievements and the nature of his relationships with the people around him. During a particular period this form of communication makes possible the enrichment of communicative content and the continuing development of the child's mind and emotions. The time will come, however, when the content of the communication, as it were, outgrows the earlier form and comes into contradiction with the latter. Then the old form of communication is pushed into the background, its place being taken by a new, more sophisticated form.

This is how the constant interaction of two lines of development takes place—that of the child's overall mental and emotional development and the development of his communication. Changes in the first line of development create conditions, *essential* for changing the form of communication, yet in themselves inadequate for it. They become *adequate* only in conjunction with social input from the adult. As a result the development of communication ensures activity by both parties involved: the *adult* shows initiative, outstripping the level so far reached by the child and revealing to the young child new opportunities of communication: the child develops his activity; it is only in the course of this activity that he is able to master the new content proffered to him by an adult.

Knowledge of the indicators for the various forms of communication enables the adult to assess the level of development

his child has reached, and, in cases where he lags behind the norm for his age or where his development represents some major deviation from the normal course, to organise special remedial sessions, in which the adult's initiative leading the way is all important. Starting out from what the child already knows and the skills he already possesses, his elders should offer him contacts of a higher order and, with patience, but at the same time perseverance, they should gradually bring the child up to the communicative activity of children at the next level.

The experience of interaction with adults, organised by adults, is something which enriches and transforms children's social needs. It should be stressed that without constant support from adults, particularly during the first months and years of life, the advance of children's communication with the people around them will be held back or even grind to a halt. On the other hand, active intervention by adults can, in a relatively short time, give rise to positive improvements in children's communication, even that of children of six and seven, and can help overcome defects and deviations in their communicative activity.

Man's need for friendly attention lies at the basis of any individual's communicative needs for the whole of his life. *Practical, cognitive* and *interpersonal* motives constitute the main categories of man's stimuli to engage in contacts with his own kind. At various periods in his life the "leader" among these three will vary, but all the three types of motive will preserve their vital importance. With the passing of time the content of these motives will change considerably, just as will the content of man's communicative needs—it will become more varied and ramified, both with regard to the individual seeking communication and to his partners. The course of development of the individual's communicative operations will also open out over an infinitely wider range: the kaleidoscope

of these operations will be extremely bright and expressive, as the ability develops to convey the subtlest of nuances of man's view of himself and others, and all the myriad implications of his relationship both to himself and other people.

During pre-school childhood only the first foundation stones are laid for the enormous edifice, which subsequent adult communication becomes.

Chapter III

THE DEVELOPMENT OF CHILDREN'S COMMUNICATION WITH THEIR PEERS

For many years psychologists have been directing special attention to the communication between small children and adults. There is indeed no question of its importance in the life of a child. As for children's communication with their peers, the role of such communication in their lives was neglected by researchers for a long time. It is only when a child enters school and afterwards, right through adolescence, up until the time when he, in his turn, also becomes an adult, that the importance of his contacts with his peers comes clearly to the fore.

All this despite the fact that pre-school children attend a variety of children's establishments where they spend a considerable part of the day among their peers. Children who are brought up in the family usually encounter play-mates of their own age every day as well. A young child who has grown up in relative isolation from his peers is the exception, not the rule: such a situation usually stems from illness or the urge of his parents to shelter their child from the bad influence of the "street". We need to ask ourselves, in which circumstances does the pre-school child develop best: when he grows up on his own, when he has episodic contacts with his peers, or when he is constantly in a group of other children of his age? This question has definite practical implications, for every parent wishes to create conditions as favourable as possible for his

child's development. The interests of the state also make it imperative to decide which is more suitable: to provide working conditions which enable a mother to bring up her baby at home, or to extend the network of state child-care establishments of one sort or another. The question under discussion is also of theoretical importance in the context of the wider issue of children's mental and emotional development. Is there reason to believe that communication with their peers contributes in large measure to the moulding of small children's characters and activity? Which aspects of personality does a child's contact with his peers actually influence?

Common Factors and Differences in Children's Communication with Adults and with Their Peers

A child's contacts with people of different ages have many elements in common, yet they are not identical. It is therefore logical to view such contacts as two variants of one and the same phenomenon. The first variant (both in time and in its importance with regard to the child's life) is the child's communication with adults, and the second—his communication with his peers.

There are, however, at the same time many essential differences between a child's contacts with his elders and those with his peers. Without any investigation it is immediately evident that a child behaves differently when amongst his playmates and friends, and when with his parents. Yet where does the essence of these differences lie, what kind of differences are they? To answer these questions detailed analysis is first required.

We need to examine the specific function of communication with peers in the mental and emotional development of pre-school children and ask what this factor contributes to the child's progress, to examine what the child gains from contacts with children of his own age, and, finally, what exactly a peer loses if he does not have such contacts.

Our task was to define the *similarities* between the two spheres of communication and single out the *specific characteristics* of each.

First and foremost there is no denying that communication with peers is interaction involving two or more people. It is aimed at achieving a *common goal* and *establishing relationships,* and proceeds by means of *co-ordination* of effort and is furthered by an *exchange of messages.* Consequently, our definition of communication is fully applicable to both spheres. For this reason it is perfectly possible to use the general psychological theory of activity when examining and interpreting this second sphere of communication, the theory which was used as a basis for our analysis of children's communication with adults.

From this common approach that can be used for communication and activity in both spheres there follows an identical interpretation of the *subject* of communication: this is provided by another person, in the role of subject, and not merely perceived as a physical body. *Motives* of communication are also identical in both spheres—the attributes of another child, for whose sake the pre-school child turns to him, and of course the attributes of the pre-school child himself. These motives belong to one and the same three categories as found in the sphere of communication with adults—*practical, cognitive* and *interpersonal.* They are linked respectively with shared practical, theoretical and moral activity.

All other structural elements of children's communicative

activity are also common to the two spheres of communication—*needs, goals, objectives, means* and *products.* Two of these elements probably deserve special mention—needs and products. A similar interpretation of communicative needs in the two spheres enables us, firstly, to extend to the second sphere the idea of the gradual moulding of the child's urge to engage in communication with other children. This means that it begins a short time after the baby's birth, takes shape on the basis of needs that came into play earlier, including innate ones, and is moulded in the course of the actual real-life experience of interaction between children which initially does not bear the stamp of communication. Secondly, the opportunity emerges to use the same indices that have been elaborated and tested in the first sphere of communication to identify the child's need for communication with his peers, in other words: interest shown by a child in another person, an emotional response to his actions, the endeavour to attract attention to himself and to clarify how other people assess his actions and deeds.

As for the products of communication, these are only superficially similar in the two different spheres, while in their specific details they are quite distinct one from the other. Let us take, for instance, relationships—firm ties that take shape as a result of communication between the child and other participants in the communication. A young child is filled with a tender and warm love for his close relatives—mother, father; for certain familiar figures among his elders, such as his kindergarten teacher, he feels anxious respect with emotional overtones. It is absolutely clear that the relationships, which the pre-school child establishes with friends of his own age, are of a quite different kind: fellow-feeling, liking and, less frequently, close friendship. Another product of communication—a self-image—appeared, on the contrary, very similar in the two

spheres of communication, with both adults and peers: after all, the child was finding out about himself in both cases!

Thus it would appear that communicative activity in both spheres is more or less the same in all the essential details. In the world as a whole there is a good number of professional psychologists who take this view, basing it on experiments with animals. In psychological journals we can also find descriptions of observations of groups of children, who, as a result of exceptional circumstances, found themselves among hostile adults or those who were completely indifferent to them. Among these children deep and lasting bonds to members of their peer group appeared, of a kind not usually associated with this age group. Members of the peer group came to replace loving parents and kind teachers, and the lack of communication with adults was filled by communication with peers.

By way of conclusion it can be said that, for a young child, a friend or play-mate of his own age is more or less the same kind of creature as an adult, only the former is less important and less dear to him in life. At the same time it has not yet been demonstrated that a shortage of communication with peers has a detrimental influence on children's overall mental and emotional development. No one psychologist has reported a child becoming institutionalised as a result of insufficient contact with peers. The famous American children's doctor Benjamin Spock pointed out, admittedly, that an adult's relationships with other people at work, within the family and with friends, depend on how well he got on with other children as a child. If a child has not spent time in the company of children, it will take him many months to get used to them when he first comes to school.

It should, however, be acknowledged that we do not, as yet, know anything reliable about whether and how remaining outside the society of his peers prevents children later on from

establishing amiable and friendly relationships with class- or play-mates. Still less is known about the extent to which isolation from peers in childhood makes it more difficult for someone, once adult, to make business and other contacts with people around him. After all, to establish such things reliably it would be essential to include another factor that we already know to be important, namely what the said person's communication with adults was like in childhood.

Yet anyone who has had anything to do with children knows that they feel a strong need, not just for any people to communicate with, but precisely for peers and play-mates. Soviet psychologists often cite the phrase of a six-year-old boy, trying to explain gently to his mother, who had offered to partner him in a game: "You're big, and I need childrens!" His words show that he was keenly aware that there is something special to be derived from communication with his peers. He had clearly understood that he needed other children and admitted it aloud. Children younger than this are unlikely to actually say as much out loud, yet one only needs to watch how they welcome the appearance of one of their peers—they do so quite differently from the way in which they welcome the appearance of a loved and dear adult. This means that, in addition to the similarities in the two spheres of communication, there are also distinctive features.

It is possible to assert quite confidently that the main characteristics of the second sphere of communicative activity stem from the attribute that serves to distinguish the peer-partner from the adult-partner in communication—namely age. In the second sphere, those participating in communication are more or less on an equal footing, while in the first sphere one of the partners—the adult—possesses experience way beyond that of the other, not to mention knowledge, skills, physical strength and dexterity. The Polish psychiatrist Antoni Kempinski uses

a vivid image to convey this difference. The surface, on which contacts take place between child and adult, is inclined: the child looks at the adult upwards from down below, as a result of which he perceives them as enormous. When communicating with his peers, however, the child learns to live on a "horizontal" surface, and to build relationships on "even" ground.

When, as in our research, communication is approached as communicative activity, the difference concerning the partners in communication determines first and foremost a special variety of the need for communication which takes shape in the second sphere. It should be remembered that, by its very nature, the communicative need represents man's urge to reach self-knowledge and self-evaluation through another person and with his help. If communication with an adult enables a child to know and evaluate himself through comparison with a model, an ideal, then a peer gives him the opportunity to carry out a similar task by comparing his own achievements with others', which, while superior perhaps to his own, are still within his grasp.

This difference between the mechanisms of self-knowledge and self-evaluation in communication, on the one hand, with adults and, on the other, with children, provides a pointer to the specific role of the second sphere of communication in the children's mental and emotional development. It is clear that it helps the child to develop a self-image by comparing himself with partners, whom he knows well and is used to. This sphere of communication facilitates the far from easy task of a child's identifying his own strong and weak points. It would be easy to assume that children, who often associate with their peers, and for long periods, would be able to imagine their own good qualities more accurately than pre-school children deprived of such contacts. It is effective self-evaluation that contributes to the successful development of children's personality and activity.

The need for communication assumes "tangible" form in motives for communication. It would thus seem logical to expect that the differences, assumed to exist between the variants of the communicative need in the first and second spheres of communication respectively, will lead to distinctions between the motivational components of the communication in the two spheres. It is obvious that the pre-school child turns to a playmate because of the attributes to be found in the child that are different from those which attract him in his elders (otherwise he would have turned to adults). It is possible, too, that he is anxious to find out something new about himself from his peers. Consequently, the crucial distinctive characteristics of the two spheres of communication should be looked for in the needs and motives of that activity and in the vital function of the two spheres of communication in the children's mental and emotional development that is closely bound up with these needs and motives.

A child's communication with his peers changes considerably during the first years of his life and assumes, at different stages during pre-school childhood, qualitatively different forms. Yet there are driving forces behind their sequence, as each replaces the one that went before, that differ from those which were observed in the first sphere of communicative activity. There the decisive role was that of the adult's initiative as he led the way, opening up to the child the horizons that the next level of contacts will provide. During communication with peers all those participating in interaction possess more or less the same potential, and the younger the children the more limited their resources. Yet it is adults who look after small children and it is they, obviously, who organise children's first encounters with their peers. Hence the conclusion that there is a close *connection* between the two spheres of communication during a child's first years of life.

First and foremost, children's communication with adults comes to provide the model on which children's communication with their peers is based later on; it is precisely an adult who first presents the baby with the phenomenon of a human being, an individual. Initially a child learns to respond to communication from close relatives looking after him, then he makes the transition to initiating acts which of his own accord he addresses to the people around him. It is in this way that a small child's elders lead him to the first steps in his intellectual and emotional life—to his need for communication with other people.

It therefore follows that communication with peers is bound to take place at a later stage. Pre-school children embark on this second type of communication only after they have already assumed the role of subject in their communication with their elders. It means that they will have to cover the same ground again, but the second time not with a partner who is a caring experienced mentor, but instead with a fellow novice.

Yet, in this situation as well, adults do not deny small children their help. The next important aspect of the influence of the first sphere of communication on the second was singled out as the active intervention by elders, who use the whole range of the powerful tools they have at their disposal, in the contacts made by small children. They organise meetings between children (after all, in the child's first two years he is unlikely to go out walking through the garden or down the street with another small child on his own initiative), interfere in their quarrels (if these threaten to develop into excessively tense conflict), and give their support to any positive moves made by the little friends.

Even when there are no adults to hand, their image, though no longer visible, is present in a child's thoughts and influences his selection of a particular action, or the tone and content

of his words. The influence of communication with adults on the development of children's communicative interaction lies, as we see it, precisely in the regulating influence of the intellectual and moral values, taken over from adults, on the relationships which take shape between small children. The urge to earn Mother's approval or that of the teacher at kindergarten determines to a large extent how children behave when they are playing far away from any adults. Often preschool children also take into account the possibility that they might be punished by adults. Once grasped by the small child, the opinions of a loved and trusted adult constitute for him as it were a system of values that shapes the way in which he resolves, to an important and often decisive degree, problems connected with relationships with his friends.

The assumptions described above provided the basis for the experimental investigation into the emergence and development of children's communication with peers during the first seven years of their life. The findings from this investigation gave us grounds for identifying two fairly long preliminary stages of such communication and three forms of communication in the second sphere.

The Pre-History of Communication (up to 12 months)

Is there any point in looking for indicators of communication in children during their first year? Babies do admittedly enter into contact with adults during the very first days of their life, and in the weeks that follow communicative links are quickly established. On the basis of these first links more substantial and more profound relationships are built up, which by the end of that first year become strikingly complex. They possess

priceless value for the baby's subsequent mental and emotional development. Yet the social situation of the baby is such that he cannot live for a single day without an adult. Not only can he manage without peers, but in practice he does just that. Usually a woman only gives birth to one baby at a time, which means that, even if there already is another child in the family, it is likely to be at least a year old, and therefore not a peer of the new-born child. This means that in the ordinary run of things the question as to whether a baby should or should not communicate with his peers does not arise at all.

There are only two cases when the questions as to whether babies communicate is worth asking. The first of these is in the case of twins, but that will not be discussed here, for the question raises many remarkable but highly specialised issues.

The second case concerns babies who are being looked after in closed child-care establishments. This case is worth examining in the context of this study, particularly because, from the theoretical point of view, it is very interesting to establish what kind of relationships take shape within a children's home, where a group of ten children spend all its waking hours in one and the same play-pen, where all the time the children can see and hear each other, where they can touch their fellows, and all this in conditions where there is a shortage of contacts with adults. We need to examine whether compensatory contacts develop that make up for the shortage of communication with adults.

Specialists on the subject of early childhood, here in the USSR and in other countries as well, underline the "interest" which babies, who have been raised in a child-care establishment, show in each other and the greater speed with which they become accustomed to the conditions in the child-care establishment in the second year of their life, as compared

with children who come to the children's home from a family background, without having passed through the "school" of contacts with other children during babyhood. Mention is also made of the selective liking shown by these very young children for some of their peers rather than others. It was decided to examine the kind of relationships that link these babies and to use the theory of activity to make this analysis and indicators to the effect that a specific need for communication has actually taken shape.

A large number of experiments was carried out which gave grounds for concluding that babies in the first year of life do not communicate between themselves. They do not yet have a specific need for communication with their peers and no real communicative activity with the latter has as yet taken shape. However, amongst babies growing up in a children's home, who are living in groups all the time, contacts of a non-specific kind take shape and gradually grow stronger, and these can later develop into actions of communication. There is an unusual and lengthy prelude to real communication which it is interesting and useful to examine in more detail, as, for example, in the findings of the research carried out by Larissa Tsaregorodtseva.

Sixty children were examined in the course of her experiments, four groups of fifteen children, aged respectively three months, five to six months, eight to nine months and eleven to twelve months. During the experiments the children were divided into sub-groups of three which enabled the researcher to examine the contacts between them. Seven series of experiments were undertaken with each group of three children. In the first series of experiments the children were laid down, or placed in a sitting position in the play-pen facing each other, without any toys, and they were given ten minutes to do whatever they liked. During the second, third and fourth series toys

were placed in the middle of the circle in which the children had been arranged, either one toy in front of each child or just one for the whole group. In the fifth, sixth and seventh series, an adult picked up one of the children and showed him, talking the while, to the other two: then the child was put back into the play-pen in his original place.

All these instances of interaction between the children Tsaregorodtseva referred to with the word "contact". This term served to bracket together all ways in which the babies came together: physical contacts (when a child touched one of his peers), cognitive (when he examined one of his peers), emotional (when a child expressed to another member of the group his attitude to him and his actions through a smile, gestures or body language), object-directed and practical (joint activity involving more than one child with a toy or object), and play contacts (when children all clapped their hands or played "hide and seek"). Only actions through which children expressed their relationship to a peer as a subject were classified as *communication*; when a baby watched the response of another baby and took his peer into account when he was selecting what to do next. Other contacts—object ones—were classified as non-specific: while carrying these out, the baby behaved in such a way with his peer as if he was a toy or some other inanimate object.

In the course of her investigations Tsaregorodtseva managed to record 126 different kinds of contacts between these children—an incredible wealth of contacts! A considerable proportion of them were aimed at finding out what this interesting phenomenon—another child—actually was. The children looked at each other and touched the face, body and clothes of their play-mate with their hands: the older babies tried to crawl over to one of their peers or pull him nearer to themselves by the leg or arm. Often a baby would try out how one

of the other two "tasted", putting the fingers of another child into his mouth, or licking his cheek or foot. Manifestations of emotion constituted the largest group of contacts, and moreover it was established that pleasure and displeasure were encountered in roughly equal proportions. Object-directed/enactive contacts were observed less frequently: a child would take another by the hand, pull at his clothes, take his shoes off and bend his leg or arm. The smallest group of contacts was that consisting of joint actions: these were short isolated episodes of exchanged glances, smiles, gestures and play actions between children; manipulations were accompanied with a variety of vocalisations ranging from dissatisfied whining to shouts of protest.

As the children grew older, the number and range of these contacts increased.

Thus it can be seen the babies came into contact with each other often and in a variety of ways. Now we need to ask whether another child brings forth a different approach on their part as compared to that observed when a child comes into contact with either adults or inanimate objects. Does a baby of under a year see one of his fellows more as a person or as a toy? It turned out that more often than not the baby behaved with another child as he would with an adult: the small children manifested keen interest in the face of their peer, particularly his eyes, and they expressed pleasure and joy when they saw him. As early as three months children were aware that their peer belonged to the same species as themselves: this was clear from the fact that even the youngest of the children involved in the experiments directed the same actions at their play-mates as at adults.

In second place were non-specific actions of the babies which were identical when they saw adults, peers and toys. The actions were aimed at making closer acquaintance with the shape,

colour, and texture of all these objects and reflected the babies' satisfaction when they managed to examine the objects thoroughly, or their irritation when they failed to do so. The children tried to touch and feel the body of another child, to manipulate with his leg or arm, or fingers. During such manipulations the babies did not react to protests from their play-mate: it was as if they had not heard his loud cry or seen his tears.

The smallest group of actions carried out by the babies was the most interesting one for the purposes of the researcher—that consisting of actions directed only at the peer, which had not been seen during young children's contacts with adults. The existence of these specific actions bears witness to the baby's singling out of his peer, the fact that he is distinguishing him from adults and from toys. How actually does the baby perceive his peer?

In her search for an answer to this question the researcher examined in detail all the contacts made by the babies specifically with peers. Half of the contacts reflected the baby's interest in his play-mate's body. This means that the babies perceived their peer as an object. Admittedly the babies distinguished their peer from all other objects to hand, but on account of his attractive physical attributes: they were surprised and delighted by the little hands of the other child, by the rosy, agile fingers, and the round head. They liked the resilient and at the same time soft body of the other child. While crawling over their peer, the babies pushed off from the baby's stomach, and trod on him. In all the instances described the peer remained in the role of object: in no visible way did the child seem to appreciate the fact that the other was animate and paid no attention when his peer protested against the rough bouts of exploration from his play-mate to which he was subjected. By the end of the first year the baby's attitude to his

peer as an object had become even more clearly marked as a result of the advance of the baby's movements.

Yet other actions were identified which expressed the baby's view of his peer as *subject*. These were all carried out while looking into the eyes of the play-mate and with a series of typical facial expressions indicating expectation of the other's response. The youngest of the children taking part in the experiment looked into the face of their peer when they felt his touch and heard the sounds of his voice. A six-month-old child, when looking at his peer, would smile at him and begin in animated fashion to shake a toy that he was clutching in his fist. At nine months children's first joint actions could be observed. Once, three children lying next to each other in a play-pen began one after another to pull at a shoe lace that was stuck in a shoe: they looked at each other as they did so and smiled. On another occasion, while standing by the wall of the play-pen, they pushed it to and fro together. One child began to bang a brick against the wall and another, after watching what he had been doing, began to do the same thing. By the age of twelve months the babies, who had already learnt to move on all fours or to walk, sometimes embarked upon noisy joint games: they chased after each other, played "hide-and-seek", jumped up and down squealing and shaking toys about.

Yet subject-orientated actions were to be observed rarely even among the elder children taking part in the investigation: play episodes only used to last for a few seconds. Often the researcher was to observe how the baby, after laughing, would turn away from his play-mate for a moment, screw up his eyes and then . . . lose sight of him, because at that moment another object would catch his eye and, taken up with this, the child forgot all about his peer. On other occasions incoherent movements and loud vocalisations quickly tired out the babies and put an end to the interaction between peers.

Typical of the behaviour of children aged between 1 and 12 months was a close overlapping of subject-orientated and object-directed contacts. A child might just have looked at his peer as if the latter were a toy, tried to touch him as just another interesting "object" and then all of a sudden would look him in the eye. He would meet with a glance by way of response and his face would light up with a smile. Or the opposite might be the case: children would be looking at one another in a friendly way, but then one would catch sight of a stacking pyramid in the hands of the other. After clutching hold of it, he would begin to pull it over towards him. He would seem not to hear the indignant cries of his peer, who for him had turned into nothing more than an obstacle on the path to acquisition of this particular toy.

Types of actions specific to contacts between peers were classified in another way as well: acts of response and initiation were singled out. A *response* from a child might be called forth by his play-mate, although the latter often did not make any effort to attract any attention to himself: it was just that his appearance, movements, voice or looks stimulated the interest of the young observers. The latter would watch their play-mate for a long time and enjoy doing so. Yet these same observers manifested a striking lack of sensitivity to the protests and anger of their peers. They continued to feel the ear of a baby although he angrily pushed them away: they might knock over their neighbour, pulling at the straps of his play-suit so as to pull themselves up onto their own, still unsteady legs and then walk on without looking round to their crying peer.

Important findings resulted from the analysis of babies' *initiating* actions directed at their peers, in other words, actions through which the babies attracted the attention of their peers and sought to hold it by offering them new varieties of interaction. These actions were in fact either a show of strength,

or a demonstration of skills to peers. An attentive look into the face of their peers accompanied actions and testified to the child's intention of attracting their attention to himself. During the first six months attention from his fellows resulted in excited behaviour on the baby's part involving quick breathing and a bright smile. A slackening off of attention brought with it a typical rise in the vigour of the initiating actions. At the age of six months the child's gaze called forth an "explosion" of activity on the part of his peers. They would blow out air noisily through half-closed lips, begin to gurgle for long periods, laugh and babble. By the end of the first year the child could pass his play-mate a toy, or shout out, keeping a sly watch on his reaction. If the peer's interest abated, the baby would cry out, pull at his arm or clothes, and try to turn his face round so that the other child was looking at him.

It should be remembered that babies relate in different ways to their peers. It turns out that roughly a third of children in each age group manifested an enduring and strong preference for one of his two partners (in the group of three). Observations revealed that the babies prefer a dynamic peer as a source of rich impressions. They also value a play-mate if he is emotional—his emotional responses serve to support their own initiative and facilitate the development of their own activity. Yet there is, of course, neither love nor friendship among children during the first year of life. Their preference for one rather than the other child can be likened to interest in a colourful kaleidoscope of unexpected changes.

Babies themselves in the first year of life are not yet able to organise contacts between themselves. An adult has to help them, attracting the attention of each child in turn to each member of the small group. While doing this, the adult needs to stand behind the child being shown to the other peers, talk to them on his behalf, move him closer to them, and steer his

hand to stroke them. After showing the child to his two peers, it is advisable to make a pause lasting two to three minutes, when the children should sit together without the adult and without toys, and just feast their eyes upon each other. They soon tire of this, however. Then it is important that the adult either continue the demonstration, lifting up another baby, or give the children toys.

Thus it can be seen how, during the first year of life, a host of different contacts develop between children. Cognitive and emotional contacts are the kinds that predominate: by the end of this period the first practical shared actions with objects are beginning to be observed, and energetic games. Yet can all this be referred to as communication? In order to answer this question, four indicators of the communicative need should be applied to the findings so far. The first can be seen at the age of three months: from that time onward the babies manifest constant interest in each other, and attempt to explore and find out about their peers. The second is an emotional attitude towards their peers and their actions and this indicator can also be found in children: their impressions of their peers are obviously coloured by pleasure or irritation, anger or fear, but they never remain impassive. The third is expressed in the child's attempts to attract the attention of his peers. Action of this sort is action of an initiating and subjective character. Manifestations of this third indicator proved to be rare exceptions even in the oldest sub-group. The fourth indicator is the child's sensitivity in relation to his peers. When aged between 8 and 12 months, some of the children observed in the experiment try to take into account their play-mates' attitudes: they babble more and wave their hands or rattles about more, when their play-mates manifest interest or smile. Yet infinitely more often these same children paid no attention to the protests and anger of their peers and demonstrated a striking de-

gree of insensitivity to the latter's appeals to them. At such moments they were generally preoccupied: they were looking at some long-desired object and did not see the face of the other child. A trivial toy would be enough for a child to forget that his peer was a subject and needed to have his feelings and moods treated gently. In view of this, the fourth indicator of the communicative need should not be regarded as a stable component of babies' behaviour. This is also borne out by the frequency of instances when a baby behaves towards his peers as if they were inanimate objects.

From the above it follows indisputably that during the first year of life communication between peers has not yet been established and that the need for it has not yet taken shape. In the varied and numerous contacts between these babies it is only the first two indicators of communicative need that are always to be found. The third and fourth are manifested only seldom, in colourful but isolated actions, even in the behaviour of the oldest children within this category.

What practical conclusion should be drawn from all this? Probably one to the effect that within the family there is no need specially to arrange encounters for babies with their peers: a baby does not lose anything vital if he grows up without the company of play-mates.

He will derive essential impressions and truly humane relationships from his adult relatives in the shared activity he engages in with them. In child-care establishments, on the other hand, in particular those of the closed variety, the contacts described here can provide children with essential support. Babies can find in them additional impressions, stimuli for strong positive and negative experiences, and scope for manifesting their own initiative.

The Emergence of a Communicative Need Among Peers (12-24 months)

While small babies who have parents and are being brought up in the family do not usually meet their peers, in the second year of life the situation changes radically. At this stage toddlers are often not asleep any more when they are taken out for fresh air in the garden. They play in the sand or the grass, and in the winter they dig in the snow with their little spades. They are still taken out in prams or on little sledges, but often they are allowed to get out and walk about a little. Each day, wherever they go, they see other children of various ages. A considerable number of children in this age group begin to go to crèches, and groups of children specially organised for walks also provide a source of regular contacts with other children. The question as to these children's ability to communicate with their peers and the importance of this factor for their mental and emotional development acquires unmistakable practical importance. Nor is there any doubt as to its theoretical significance, in so far as information about what meetings and interaction with each other give children is important for the study of the psychology of children from this age group.

A number of experiments were carried out and the conclusion was drawn that, during the second year of life, relationships with other children start to take shape, where none had been before, and only gradually does the number and depth of these increase. As a result of this, children begin to experience a new need—one for specific contacts with each other, and the communicative activity to satisfy that need also begins to emerge—namely communication with peers.

In the experiments of Lyudmila Galiguzova an unusual setting for communication was provided. The children were

placed sometimes near each other in pairs (either with toys or without), and sometimes in cots moved far enough apart to ensure that they could not reach each other. In some experiments the child stayed alone with the researcher, but even then it was his relationship to his peers that was being investigated: the researcher was showing him slides depicting an adult, a peer, and an animal separately or in different combinations.

The children taking part in this experiment all attended crèches in the day-time. This meant that they had not experienced a shortage of communication with adults, like children living in a home. They did not, however, have experience of living in a group of peers round the clock. Comparisons of the interaction between children aged from 12 to 24 months at crèches and in the children's home showed that both groups of children had covered, to a large extent, similar ground in their development during this year. From attention and interest coloured with various emotions they had then gradually made the transition to initiating attempts to attract the attention of their play-mates and manifested sensitivity to their peers' relationship towards themselves.

Observations made by the psychologists also showed that children from the children's home, although they were not starting from scratch when it came to communication at the age of a year (as were the children from the crèche) but had already been well prepared for real communication, began more and more to lag behind the crèche children with the passing of each month and, by the age of two, the contacts between the children from the home were conspicuously more limited in both number and content. Inadequate contact with adults had held back their development with regard to object-directed actions and sequential play, and had also kept their emotionalism and initiative at a lower level. All these shortcomings affected the sphere of their contacts with their

peers and held back their subsequent development. The children in the closed child-care establishments were marking time and in some respects lagging behind. Their interest in objects which was developing along the right lines, although slowly, often gave rise to quarrels in view of their inability to get on with their play-mates. They would be pulled to the corners by the adults looking after the children. Yet the next day the same thing would start all over again... All the time children were acquiring more and more experience of misunderstandings, hurts, and such experience is the last thing to facilitate the establishment of friendly ties.

Returning to the group of children aged between 12 and 24 months at the crèche, we shall observe that a small child's peers remind him of adults more than anything else. At the same time, a play-mate appears to a child in many respects like an interesting toy—a moving toy, but one without feelings and therefore quite suitable for exploration purposes. Only gradually does there begin to dawn on the small child the most wonderful thing of all about his peer: he is not a thing after all, but a person, not one like his mother, teacher or other adults, but one like himself—Another Child! Every moment of this discovery fills the young child with burning curiosity, arouses his excitement and emotion, and the child is drawn to his peer as if by a magnet. When children caught sight of their peer on a slide, they at once started gazing at the picture with great attentiveness: they bent forward, trying to get nearer to the screen, pointed to the picture with their finger, and at the same time kept turning to the researcher. Neither the picture of the lion nor that of the woman had similar effect upon the child or were accompanied by expressions of such happy attention or such a flow of vocalisations and words. The small children saw themselves in this picture! There was Vicky, a little girl of eighteen months, looking at

the picture of a small child on the screen with a happy smile. Then she turned to the researcher, prodded the picture with her finger and kept saying: "Vicky, Vicky!" Satisfied after that, she would turn back to examining the slide. On the slides there were pictures of small children, some of whom were crying and some of whom were smiling. The children who watched the screen reproduced the facial expressions of the child in the slide: without thinking they screwed up their faces into a sad expression or began to beam in a responding smile. The children, who were older than 18 months and had already began to talk, studied the clothes worn by the child in the slide and said things like: "I've got a jacket too", "Mamma's bought me a pretty dress too". Real life peers also aroused similar reactions: the children examined their body, their clothes and then they immediately began to compare them with themselves. Automatically they began to repeat their peers' movements, facial expressions and words. Neither the adult nor the toy ever called forth repetitions of this sort, whereas to the picture of the child the children reacted with an echo of what they beheld.

The correlation between subject-orientated and object-directed actions, initiations and responses during contact with their peers was similar among children aged between one and two years to that observed among the children aged under a year. Now, though, the children were much more independent and deft, they had better control of their behaviour and were more willing to enter into contact with their peers: their meetings occurred approximately ten times more frequently than before.

The eventual findings with regard to the children's development also differed in the two cases. The transformation of the main types of action during the second year of a child's life was moving in a similar direction: the children's initiating

actions were taking shape more clearly and becoming more forceful all the time. At the beginning of the child's second year of life, relationships between the small children involved little more than mutual interest and pleasure. It was at about eighteen months that a major turning-point took place: there was a sharp decline in actions carried out in connection with the peer in which he was treated as an inanimate object, and a rapid increase in the share of initiating actions, aimed at arousing the play-mate's interest and attracting his attention. At the same time the small children were becoming more sensitive to their peers' attitudes to themselves, and even the peers' reactions to their emotions and experiences, although the child's awareness of other children in real situations still remained weak even at the end of the second year. Object-directed actions directed towards peers were still to be found right up until the age of two; however, the proportion of the latter and, more importantly, their significance in this sphere of the small children's activity loomed far less large than before.

The most important event for the emergence of communication with peers that occurred during the second year was most probably the appearance of interaction with *specific content*. Whereas during the first six months of the child's second year a peer is half-toy, half-adult, after the age of eighteen months he becomes a special figure in the child's world. A small child will begin to do things together with a peer, which he does not do either when on his own or in the company of an adult.

What kind of things precisely? We should hurry here to disillusion those readers who anticipate that something unexpected or enigmatic is to follow: the specific content of these contacts among children during their second year was mischievousness and little pranks. Yes, there was no end of naughty

pieces of fun and games with toys or without them, with sand, or water—the kind of thing that readers will all have had the chance to observe. Yet there was a very important psychological event reflected in the mischief of the small children: it marked the emergence of a new range of activities and the clear identification of a new circle of play-mates, who were always ready to join in these activities. What strikes psychologists and teachers, and worries and angers parents is the uninhibited, and even totally chaotic nature of the small children's joint activity. "What are they jumping around and laughing for? Why are they splashing water and rolling around in the grass?", "They'll get dirty and spoil their clothes, they'll make a nice clean flat untidy, and they might fall over and cut themselves!" Yet it is not one or two isolated cases, it is a stage that all young children go through.

"The children are burning up their surplus energy," explain some psychologists. "They're simply not properly occupied," assume their teachers. "They're exercising their nerves and muscles," the physiologists maintain. Is this really the case though? The uninhibited, even impulsive nature of these first games, engaged in by young children from one and the same age group, does not tie up with the alleged intention of exercising nerves or muscles, or anything else for that matter. They are, of course, strengthening their bodies through this activity and developing the co-ordination of their movements but without consciously setting themselves this goal. Any other attempts to explain the young children's inclination to engage in joint pranks make little psychological sense.

It is obvious that in these games and pranks the children are unconsciously yet tenaciously trying to understand what they are capable of, what skills and abilities they have. They demand of a peer that he join in this search, show readiness to go along with any piece of mischief, act alongside them and

in this way help to create a general atmosphere of uninhibited, free and creative quest. One child might, for instance, chance to look at his play-mate hanging his head between his knees; then both of the children would stand back to back and carry out their observations in that strange pose. The unusual angle would alter the normal appearance of a long since familiar friend, and the child's own inventiveness would arouse his own astonishment and rapture. In another pair, children might at first repeat each other's babblings and then both of them would start shouting them out together, louder and louder, and there would be no stopping them. Soon both the children would be squealing and rolling on the carpet with peals of laughter.

In their games the children were creative and imaginative. Here and now, the small children blended together in vivid integral images what they had learnt from adults, and what they had discovered within themselves and acquired independently. They expressed these images in unusual poses and weird grimaces; it was clear how they were themselves amazed at their own double Dutch that they had just invented, and the loud piercing sounds of their own cries. Not yet able to draw, sing or make up poems, the toddlers aged between one and two express their vaguely perceived creative urges in movement and sound. Yet they need an audience that would evaluate their achievements and take up their inventions. In this way, the children find their most important occupation—creative self-expression, and their co-authors and like-minded associates—peers, who support them and share their inspiration.

So, within the same general framework but as a specific variant, the miracle of the birth of the communicative need takes place. Now it is a need for communication with peers, creatures that are the child's equal. The basis for the appearance of this need was provided once again by earlier needs—the need

for impressions, the urge for activity, and the need to communicate with adults. The basis is thus partly the same as in the case of the need for communication with adults, yet now there is not and cannot be a need of satisfying physiological needs. Two new key components appear instead of it, though—the urge for activity which took shape during the first year of life, and the need to communicate with adults which has already developed to a considerable extent. Yet even this renewed basis, that has also been rendered more complex, only provided a starting point. The actual need for communication with their peers turned out to be really new. Reaching out for interesting impressions and active pursuits, the child has opened up for himself remarkable opportunities for self-knowledge and self-evaluation via a being that is his equal. He has found an unexpected chance to reveal within himself an original creative side and this has given him a source of satisfaction hitherto unknown, and what is more, in such a vivid, poignant form which proved unique in his life to date. This new variant of the communicative need emerged in the course of an activity with highly specific content which was bound to make such an achievement attainable.

By the age of two the emergence of a child's need for communication with his peers and the corresponding communicative activity are in general terms complete. There appears on the scene a second sphere of communication, broadly similar to the first, yet different in some respects. Now we need to ask what is its place in the overall system of children's vital activity. Is it necessary to foster a child's special skill in making contact with his peers and, if so, how should this be done?

In experiments carried out by researchers from our institute children were placed in conditions where they had to choose between an adult, a peer or a toy, or alternatively opt for a

combination of interaction with two or three of the above. This approach enabled us to assess the hierarchy of the small child's needs. As was to have been expected, the adult had no competition. While they were sitting at a little table, laid out with small objects highly attractive to children, such as bricks, little pots, little rods and dolls, each one of a pair of children kept turning to the adult, who was sitting some distance away. With a smile the child would look at the adult and hold out a toy to him, ask or tell him about something. He only looked rarely at his partner and hardly gazed into his face at all, merely following his movements and often joining in the latter (he would fill the same jar with bricks that his partner was filling, and if the latter began to empty the jar he would join him in that as well). It is not surprising that after four encounters the small child could not recognise which of his play-mates he had been playing with, and even after ten such sessions when asked to give the coloured postcard to the other small child, with whom he had been playing during the experiment, he would hand it out at random. In half the cases the child would give the card to a peer other than the one who had been his partner.

When there were no toys present, the children made frequent contact with each other and became very excited in the process, thinking up ways of amusing themselves: they looked at each other, laughed together, hid their faces in their hands only to reveal them again all of a sudden; they jumped up and down and squealed. Once a toy or a selection of toys appeared, this immediately distracted the children's attention from each other. Each one embarked on studying an object and then got down to "work" with it. More often than not he would imitate what his peer was doing without looking into his face, or he would try to take his partner's toy away. If there was a large number of similar toys to hand, then the children,

more likely than not, forgot all about each other and became absorbed each in his own play.

Observations led us to conclude that pride of place in the hierarchy of a child's needs in this age group (12-24 months) went to the child's urge to establish practical contacts with an adult. His need for object-directed activity, even without co-operation with an adult, was also very important. Communication with a peer came a modest third, and a child usually chose this only when the first two, and more important, of his needs, had been satisfied—namely for communication with an adult and manipulation with objects.

Is it possible to accelerate the emergence of children's second communicative need? In order to resolve this question, it was decided to carry out formative experiments with small children. This work was carried out with toddlers aged eighteen months, in whose behaviour the third and fourth indicators of the need for communication with peers were not to be found: their interest in their peers was confined to watching their play-mates' actions from a distance. Sessions were held with these children over a period of six weeks. The children were asked to sit down in pairs at a table loaded with toys (always the same two children in each pair). Each time it was observed that one of the children showed a liking for his partner—by smiling or handing him a toy—the adult researcher would express his approval by praising the child. If the children did not pay any attention to each other for a long time, then the adult would focus the attention of the main child in the pair on the success achieved by his play-mate and would encourage him to help his peer or simply admire him: "Look how smart Igor is! Look how tidy his hair is! Look how nicely he's helping you, how many bricks he's put in your jar!" These simple words from the adult always prompted the child to look into the face of his play-mate, sometimes with an

expression of friendly interest on his face. Subsequent testing showed that the researcher had achieved excellent results. After 16 sessions there was marked interest shown by the small children in their peer: there were twice as many actions addressed at the peer to be observed, actions similar to those used in communication with an adult. The major step forward to be observed, however, was in the number of specific actions, of a kind only found in encounters between peers: their frequency increased by 350 per cent.

When they caught sight of their play-mate, the small children, taking part in the experiment, would go up to him, take him by the hand and lead him into the room where the session was due to take place. Once they were together, the small children would manifest the capacity for initiating and respond sensitively to approaches from their play-mate. Through gestures and words they would keep trying to attract their peer's attention ("Watch me... I can do it this way, too..."), and once they had succeeded in doing so, they would repeat the action, which had originally appealed to their peer, and then think up a new one. So, as a result of these sessions, the children made rapid progress and behaved in ways typical of children aged two and over. Mutual imitation between the peers became more marked. Yet these imitations were not always mere echoes. The children would ask: "Why did you do that?" or: "Show me", "Give it to me, I want a go..."

In another series of experiments the researcher also seated the children next to each other, and also gave them a large number of small objects, but after that she went away, leaving the children to play by themselves. She only intervened if they began to quarrel. Six weeks of sessions like this also served to heighten the children's mutual interest in each other and helped them to feel some liking for each other. After ten encounters, for example, they began to recognise each other.

However, there was no emergence of initiative or sensitivity with regard to the peer's attitude to be observed, the same as in the children in the control group, who did not take part in any sessions.

This means that the main task of adults should be to make the small child aware of the fact that his peers were human beings like himself, to underline their qualities as subjects for communication, as well as for object-directed and play activity. Otherwise adults themselves and things profferred to the children will "block out" the child's peers and the start of communication with them will be postponed longer than it need be.

Our observations and psychological experiments bear witness to the fact that the emergence of children's communication with their peers takes two long years. Strictly speaking, during the first year of life the vast majority of babies came into contact with peers so rarely and so fleetingly, that this period does not really come into consideration in this respect. Only twins and children who are being brought up in closed child-care establishments, have systematic contact with each other, yet even they do not succeed in completely mastering the capacity for such communication. The importance of events occurring during the first year of life lies mainly in the fact that the baby, with the help of an adult, discovers himself as subject and learns to make contact with adults, supported by them as he does so.

The emergence of the need for communication with peers begins in earnest during the second year. It does so on the basis of the child's needs for impressions, activity and communication with adults that have already taken shape by the end of the first year. A peer will figure initially for a child as a "mini-adult" or "amusing toy", and as an "excuse to become more active". Yet, as children gain more and more experience of such encounters during their second year, they become more

and more clearly aware of the special characteristics peculiar to peers as opposed to adults. They will be mostly attracted by the constant readiness of their peers to create something new with the help of gestures and words, facial expressions and body language, and to single out their own original essence as an individual. The peer becomes both a partner for the child and an audience for the performance that the child presents to him. Small children find unique opportunities for self-discovery and self-assessment in those qualities, which they do not bring to the surface either when on their own or in the company of adults. This revelation of specific content within the context of activity stemming from quite different causes provides the basis for the emergence of a new variety of communicative need and identification of a second sphere of communication.

The main turning point during the period when communication with peers is emerging was, according to our observations, eighteen months. From that time onwards it is important to organise regular contacts between children. In crèches the staff looking after the children see to this. At home parents need, every now and then, to involve themselves in children's games, inviting them to take a closer interest in each other, so as to make them see what is pleasant, beautiful or kind in their play-mate. It is for the best if a child can have a number of acquaintances from within his peer group, for this will enable him to compare what he has achieved with other children, who have either progressed further than he has or have not yet reached his level. It is useful to support and encourage any manifestations of liking for a particular peer, although for the child aged between 12 and 24 months these are fleeting and far from enduring, and the foundation for them is not firm. Yet such attachments may later on prove conducive to genuine friendship. The main form of communi-

cation engaged in by peers of this age group is joint play with objects and also parallel play. The length of play periods for such children depends upon the time-table of their waking hours and the level of their activity.

The Emotional-Practical Form of Communication (2-4 years)

Children have by now begun to play regularly with each other. All four indicators of communicative need are by this stage constantly to be observed in the contacts between them. Their peers have ceased to be merely interesting objects, and children no longer try to investigate their peers as some kind of toy, paying no notice as they do so to their protests and distress. During the third and fourth years of life there emerges the simplest form of communicative interaction between children: this is the stage at which those processes, which began between the ages of one and two, are consolidated and take firm root.

The *content* of the communicative need remains in the same form as it emerged by the age of two: the child expects from his peer *participation in joint games.* It is vital for him, and quite sufficient, if his play-mate joins in his pranks and if he sustains and heightens the general jollity by activity together with him or in turns. So as to examine the need felt by pre-school children for communication with peers, three models for various types of need were devised and in the course of special experiments it was established which model appealed most to the children. The first model was aimed at satisfying the pre-school child's need for friendly attention from his peer; the second at satisfying his need for co-operation,

and the third at satisfying the child's need for shared experience.

The sessions in these experiments were conducted by the children themselves who were specially trained for this role: each of them acted as the adult's "trusted agent". In response to prearranged signals from the psychologist, in the course of each session he would praise the work of another child, the subject in the experiment—cutting out, sticking, moulding plasticine, or drawing (model for friendly attention); a second child would organise and lead various games and play these with the subject (model for practical co-operation); a third child would show the subject pictures, slides, a puppet theatre and other interesting things, while he himself would constantly, and in deliberately vivid terms, express what he experienced as a result of all these impressions (model for shared experience).

It came to light that the younger pre-school children—the three-year-olds—felt happiest and least inhibited during the sessions of joint play. They enjoyed the actual process of the actions with toys and their own invented games. They paid little attention to their partner in particular and found it difficult to remember him for a long time. What the small children enjoyed least were the sessions using the shared-experience model: they were irritated by the fact that their peer appeared in charge of the interesting objects to which they, the subjects, were not given access. Yet the small children's perception, even of this partner, were rather vague. They remembered most clearly and precisely of all their peers who set them tasks and praised their work generously. After twenty encounters they unanimously declared that child to be handsome, clever; they thought that he would not be capable of being nasty, and that there would be no limit to what he could achieve. For children of this age group the right circumstances

are essential to be able to notice and evaluate their playmates: there must not be any objects to "shut out" the playmate nor any object-directed activity which at this stage would set up a barrier between them.

It is the *practical* motive which assumes pride of place within the context of the earliest form of communication with peers. The motive can be classified as practical only with major reservations, for the child is not in fact achieving anything practical. Children of this age particularly value in their play-mate his readiness to have fun together, play around and romp. The dominant motive of their communication is nevertheless linked to shared *practical* activities and does not come under the heading of cognitive or specifically interpersonal communication, and it is only in this respect that it can be termed practical.

At the age of 2-3 and afterwards the actual process of joint activity attracts the small children in particular, with all its manipulations, dressing up, the construction of make-believe buildings, creeping up on each other and then running away again. The process, strange though it may sound, incorporates within itself, as far as they are concerned, the main *goal* of practical activity. Co-operation is confined to joint participation in the process, while the result can easily be transformed in the course of the activity and often disappears from view altogether. "Let's build a tower, a great big one," begins Julia. "Up to the sky!" joins in Nina enthusiastically. "Up to the Moon!" chips in Yuri, as he joins in with the little girls. With eyes a-sparkle the children begin to pile up something big. Their mother leaves the room with a sigh. When she comes back five minutes later she sees that her son with his girl companions are sitting on chairs one behind the other. Yuri is driving and calls out, "Out of the way, Mamma! I'm taking passengers out to the dacha. Move out of the way or the

train'll squash you!" The mother, puzzled by this new development, asks: "What about the tower ... up to the Moon?" "What tower?" asks the little boy genuinely surprised. "We're playing trains." "That's it. We're here," announces Nina at that moment and then confidently gets down from her chair, saying: "Now we're already in the wood. Let's look for mushrooms." Then the children began to grope about the floor.

Another feature of this kind of practical motive is also striking: each child taking part in the fun is concerned first and foremost with attracting attention to *himself* and in having *his own* actions evaluated by his play-mates. The third and fourth indicators of communicative need clearly supercede the two first ones, although, as we need to recall, they emerged later. The feature that was referred to above, and which is typical for the practical motive among children of this age group, is their reluctance to listen to each other and their tendency instead to show off. "Look, what I can do!" announces Yuri of the train game and turns round on one leg. Julia hardly bothers to look at him but at once begins in her turn to spin round, first on one leg then on another: her skirt billows out in a bell shape. "This is what I can do!" she announces. No sooner has she done so than Nina shouts, "Me, too! Me, too!" and begins dancing, lifting up the hem of her skirt on both sides with her hands. "But can you do it on one leg?" Yuri called out in a vain challenge, as the girls were not listening to him. "Boys have to wear trousers, if they didn't I could do what you're doing," Yuri concluded sadly.

The urge to demonstrate their own abilities, to provide a motive for their friends to emulate them is to be found in these small children side by side with a genuine interest in what their play-mates are doing. The researcher, for example, seated two children at opposite ends of a table and gave them one and the same task to do, namely lay out cards with pictures

on them in a particular pattern, a top row of three pictures with mushrooms, then a row of pictures with acorns, and at the bottom a single picture of a flower. Then she went over to one of the children and began to help him complete his task correctly: "Why did you take four pictures of mushrooms? You only need three." The second child immediately got up from his seat and went over to have a look. He looked with curiosity at the cards put out by his play-mate and was quite capable of laughing at his mistakes. Looking at what other children are doing and how they are doing something is a matter of burning interest to a child of two or three. It would seem that this interest is linked to the child's keen sense of the similarity between him and his peers, of the fact that he and his peer are on an equal footing.

Yet small children are not yet able to learn from other people's mistakes. The first child went back to his work and could easily have noticed the same mistake in it that his play-mate had made and which had just been making him laugh. Yet the thought did not occur to him at all. Only later, by about the age of five, would a child check his own work after watching that of his play-mate being corrected and, if necessary, make corrections in his own.

The first form of communication between children still occupies a modest place in their lives. They play on their own for long periods, whisper to themselves cues for two or three other dramatic personae, give commentaries on their actions and think out loud about their future plans. The stories and parts in these games are still only very vague and the "plots" would be very fragmentary: most important of all, the main focus of interest would be objects. Fascinated by what he is doing a child of this age comes to master substitution games: a box becomes a bed, a match turns into a daughter, and later the same box can become a garage and matches become cars.

Noisy play sessions with peers, involving excited emotions, only constitute short episodes, interspersed with long quiet periods of parallel play. This latter play is interrupted by short, but for these children important, observations of what others are doing and also by a check of the value of their own achievements gleaned from the response of others. After this the children will go their separate ways again and each one of them will become once more absorbed in his imaginative games.

Many children, however, go each day to a kindergarten. Their day spent in a group of peers constitutes a major part of their daily activity. It is for this reason that communication with peers assumes for them practical importance.

While communicating with peers, children use all those means they have acquired when making contact with adults. They make wide use of expressive gestures, poses and facial expressions. The emotional impact of interaction between small children lends major importance to expressive means of communication, as well as the desire to express themselves and find out the assessments of their peers. The first form of communication between peers is in this respect, reminiscent of the first form of communication with adults: in both cases mutual attention is expressed, which can be conveyed most effectively through expressive operations. Communication with adults, however, consisted of special "pure" episodes, while communication with peers is incorporated into the practical activities of small children. Expressions of emotion in the second sphere of communication are also distinguished by their unusual force; indeed, more often than not they are excessive: children laugh until they "burst", almost literally; they start spitting and biting in their anger; in desperation they howl and stamp. The intensity of such expressions of emotion reflects the profound nature of these children's experiences, their general lack of in-

hibition and the influence they can exert on peers: small children keep winding each other up. Adults, on the other hand, try to bring an over-excited child "under control".

Object-directed/enactive operations occupy a not unimportant place in this context, particularly in the case of children with immature speech. Yet their utterances are often of a strange, formal character. We were able to listen to a conversation like this between three-year-old girls: "You go out of my room. I don't like you. I'm not going to play with you," stated Masha in an amazingly calm tone, as she sorted out her dolls. "So, you're driving me out, are you?" inquired Natasha in a tone of philosophical contemplation. "Yes, go away," confirmed Masha. "Then you and I are having a quarrel," Natasha established. She continued, however, to play with her teddy-bear, as did Masha. Hurtful words were uttered and listened to and did not give rise to any actions that might have appeared consistent with their meaning.

More often than not the words of young children go together with gestures, facial expressions and retain a highly situational character, which is quite in keeping with the essence of the first form of communication with peers. The inability of children aged between two and four to reach agreement with one another is striking. Often one can watch two children clutching at one and the same object, each pulling it towards himself and shouting out angrily. They do not seem to be looking at each other, as anger is obscuring their gaze. It does not occur to either of them to say: "All right, you have a go and then give it to me," or even: "Let me have it for a bit and I'll give it back." When an adult says such things children quickly calm down; but they themselves are not yet able to ask or explain things.

Interaction between children aged between two and four requires constant and detailed correction by adults. Our re-

search team reached the conclusion that the most valuable contribution adults can make towards the development of the second sphere of communication is their own communication with the child. While playing with the small child, teaching him to manipulate household objects, and talking to him about his world, parents and teachers further the child's progress and the development of his activity and help shape the fundamental features of his personality. All this immeasurable wealth the child brings into the second sphere of communication. Spending it generously within that sphere, the child multiplies his store of knowledge and emotional experience and that of other children. This means that the first and most important task of relatives and teachers is the deliberate encouragement of situational-practical and extrasituational-cognitive communication with adults.

Here it is as well to stress that children, who have learnt to put shy behaviour behind them in the presence of new adults, will also play more boldly and actively with their play-mates. There also exists a direct link between the level of situational-practical communication by the child with adults and the level of his sense of well-being within a group of children; in other words, whether the child enjoys being among others of his own age and whether he is able to get on with them and play together. Children, who have a well-developed sense of well-being, used to greet the other children from their kindergarten groups quite happily, and in the evening, when going home, they used to look back at their play-mates. The children, who were unhappy and felt out of place, used to spend the whole day aloof from their peers and did not manifest any desire to make contact with them. They confined themselves to watching them from out of a corner, smiling, but then taking fright and backing away if a play-mate should walk over in their direction. This shows that the development of situational-

practical communication with adults helps children to set in motion communication amongst themselves.

Adults should actively teach children to communicate with each other. Even a two-year-old child is capable of taking in such lessons.. "Don't be unkind to your friends," insisted little Petya's mother. "If you see that someone is crying, go and comfort him. You know how you like it when I feel sorry for you." The mother in this case realised that Petya needed to be taught many things: this very active little boy often used to get the better of his peers. How glad she was when one day she observed the following scene: Petya hurried over to his friends after taking his leave of her. Running past rather clumsy little Alyosha, he grabbed his toy from him. The boy began to cry. Petya ran another few steps, his earlier momentum carrying him forward, then he turned round, went back, took a bread-ring out of his pocket and with a sigh pressed it into Alyosha's hand. Astonished little Alyosha was very happy at this and quite forgot about the toy that had been taken away from him.

For children at the level of the first form of communication with their peers the most difficult thing of all is to think about the emotional state of another child and to take that state into account and act upon it. Small children are after all not yet able to put another child to shame and have things out with him. If they give another child "as good as they get", then a quarrel begins, or worse still a fight.

This is not a question of innate egoism or aggression in small children. Some psychologists, in all seriousness, attribute these "mortal sins" to small children, convinced that weakness of this kind needs to be eradicated with recourse to punishments, tedious lectures, reproaches in front of a large audience. In the opinion of our research team the reasons for children's quarrels and the ease with which they land into conflict situations, as if specially looking for them, are to be found elsewhere. Firstly,

they cling very much to objects and, because of these, forget about their play-mates: the peer, who has gained possession of an attractive object, becomes for a child no more than an obstacle to be surmounted, and most simply of all by force. Secondly, small children at this stage still easily forget their newly-relaled perceptions of their peers as other human beings, subjects rather than objects: at the age of two they still behaved towards play-mates as if they were toys. We have only to think about how we behave with inanimate objects, such as a door that will not open, for instance. Without standing on ceremony, we put our shoulder up against it, lunge into it with all our might after taking a run up to it, particularly if there is something important the other side.

This means that a small child should be made to stop and think, reminded of what the other small child is going through and have appeals made to his compassion. Sometimes an adult has to say a few harsh words loudly during conflict between children; do not hesitate to reprove the instigator! While adults are aware that the reasons for the offender's misdemeanour can be put down to a lack of understanding, yet they should make full use of their authority and not conceal their disappointment at the child's unfortunate behaviour. Far more useful for the small child, however, will be your talk to him later on, when he has calmed down and can listen to you in a reasonable frame of mind. In such a heart-to-heart talk do not hurt him with any kind of suspicion and make a point of not using any hurtful words. If you are unable to control your irritation, then it is better to remain silent and postpone the conversation to a later occasion. The best thing to do is to look for the perfectly harmless intentions that the child had and to convince him that he simply did not take into account the feelings of the play-mate he was dealing with, and that other people's interests are something very important that

should never be forgotten. "Yes, Alyosha's tractor is lovely," Petya's mother said to him that evening on the way home. "When you saw it, you forgot about everything else, didn't you?" "I hadn't taken it for always. What made him cry so much?" Petya replied casually. "I know that it was only for a little while but Alyosha didn't!" "Why did he have to howl?" insisted Petya stubbornly. "How shall I put it?" said his mother thoughtfully. "Sometimes you feel so sad that you can't help crying. But, good for you, you went back and gave Alyosha that bread-ring." "Did you see me?" asked her son in surprise. "Yes, I hadn't gone away yet, and the teacher and I saw everything. She said you were a kind boy and that not all the children would have noticed when one of the others was sad. I felt very proud of you." "It was nothing special," muttered Petya, but it was clear that he had been deeply touched by his mother's approval.

Training through kindness, emphasis on the good move that the child was already capable of, and revealing to him what is good and admirable in other people—these are the main ways adults should set about shaping communication between very young peers, who have just embarked upon communicative interaction.

The very earliest form of children's communication with their peers can thus be seen not to be a repetition of any of the forms found in the first sphere. A child takes part in it, already possessed of many abilities, which he has acquired during his contacts with adults, but he is looking for something special, which he can only glean from his peers. This communication occupies a fairly modest place in the life of a child, clearly less important than communication with adults and object-directed activity. Yet it would be a mistake to underestimate its importance. A child feels free among his peers, on an equal footing, and receives the rare opportunity of forming an idea

of his own strengths and weaknesses through comparing himself with beings who are like himself. Hence the attention he pays to his peers and the endless interest he derives from them. He is, however, still more attracted by his peers' readiness to join in his own pranks and games, to take up his inventions and to express their opinion about his abilities the small child himself had not been aware of.

The distinctive characteristics of the first form of communication with peers help to unfold children's initiative: they favour a rapid broadening of the small child's range of emotions, both positive and negative, by drawing into that range the brightest and most extreme expressions of emotion. Communication of this type helps considerably to foster the small child's self-awareness and to mould the core of his personality: through contacts with peers he receives his first lessons in altruism, humanity, shared experience. Adults are all too willing to be lenient to children, to take care of them and indulge them, without asking for anything in return. It is not difficult for a child to behave well with them. His relationships with his playmates bring out straight away how far a child has progressed along the path of humanity, and whether he has really developed the capacity to appreciate other people's interests and to place those before his own.

How well the first form of communication with peers functions and its transformation and gradual transition to the next, higher form, all depend to a large extent on adults. Parents and teachers mould the interpersonal features of the communication and the types of skill which the child uses as he makes contact with his peers. They hold back the manifestation of selfish and aggressive tendencies, deliberately interrupt conflict and—most important of all—they discuss with the children their encounters with peers after they have taken place, calling the child's attention to what is good and kind in him and his

play-mates. Encouraging the first attempts at shared experience and efforts to act in someone else's interest is the best way to foster children's communication with their peers.

The Situational-Practical Form of Communication (4-6 years)

At approximately the age of four an important event takes place in the sphere of children's communication with other people; peers become more attractive partners for communication for the pre-school child than adults and begin to be given preference. Adults still of course remain the central figures in the life of a child, who is drawn to their warmth and admires their appearance, their knowledge and their skills, and comes to them to resolve the most important questions in his life. Nevertheless...

Psychologists put one and the same question to children of different ages: they were asked with whom they would like to play. Three-year-old children without exception answered: "With you!" After the age of four and in all subsequent years the pre-school children declared: "With a friend." Some of them hesitated, feeling awkward, and some even apologised: "We'll build something with you, too, afterwards, shall we?" Yet the preference shown for peers as partners in communication was unanimous.

The psychologist Antonina Ruzskaya noted that from the age of four children also started feeling hurt by their play-mates' behaviour and complaining about it frequently: complaints ranged from the ridiculous: "He bit my hair!", "He called me a cat!" to the deadly serious: "He promised but didn't do it," "He said they'd never take me on as a cosmonaut." Her sub-

sequent work with children from this age group confirmed that, after the age of four, children's relationships with their peers acquire a new, more important significance in the life of the pre-school child.

Situational-practical communication is the most typical form for the pre-school child. It is only for a few children that children's communication with their peers acquires an extrasituational character.

This age is the stage at which role-playing becomes the dominant activity for the pre-school child. The subject or theme of their play becomes more clearly defined, properly rounded episodes emerge and these are closely linked up with each other. Many stories are acted out by children of this age dozens of times, are embellished with vivid details and can become established favourites for long months and even years. Roles are distributed, main and subsidiary ones: the correlation between these can vary over a wide range and they can be modified under the influence of books, television programmes and real events. The most important thing from the viewpoint of our research consisted in the fact that after the age of four make-believe games and role-playing become a truly *group* activity. Children do not gloss over the events unfolding in their make-believe dramas, but really live them complete with all their details. Changes in their games we would see in terms of the deepening of their content, of the transition from the reproduction of an external setting to the revelation of the profound essence and subtle nuances of relationships between the various characters involved.

On his own the pre-school child cannot act out any of his ideas now: the participation of two, three and sometimes even more children is required and it is necessary for each one to play his part sincerely, putting his heart into it. Let us consider five-year-olds at kindergarten playing "hospitals", for in-

stance: "patients" were made to sit down on little chairs: four of the children queued up and then talked to the others about their imaginary diseases. The "doctor" sat on a big chair in glasses made of twisted wire and sporting a white apron standing in for a white coat. The surgery was run by a "nurse", wearing a white muslin scarf and a cardboard badge on her front with a red cross painted on it. She would call out the patient and the doctor with his "stethoscope" (a pencil) would listen to his chest and prescribe "tablets" (sugar candy), and sometimes an "injection" as well. The nurse would administer the medicine and the injections (touching their backs with little sticks.)

The nurse was strict and stern: she kept shouting at the patients, who were being slow on the up-take and poured shame on them for being afraid of the needle. The "doctor", on the other hand, kept comforting and reassuring all the patients. He made them laugh with questions as to what caused their illnesses: "Perhaps you ate a cockroach for supper?", or "Perhaps a tram ran over your feet?" Some of the patients would carry his jokes one stage further. "No, it was my kitten Vaska. Look how he squashed it." Everyone present in the "hospital" joined in the merriment. Three days in a row the children played this game. They changed parts and consequently the relationships between the various characters also changed, as well as the images they projected. The children derived tremendous pleasure from this game and remembered it for a long time afterwards, recalling how they had been "cured" in the play "hospital".

Communication between peers in a group game can be of two types: it can be communication between make-believe characters and communication between the actual performers. Both types are closely interwoven, and the level they have reached determines the children's opportunities for putting to-

gether an interesting performance with varied episodes: repeating such games gives the children practice in establishing relationships between the parts they are playing and, in real life, with other children. This means that communication with peers after the age of four becomes more significant than before and occupies a more prominent place in the heirarchy of other types of children's activity than has been the case at the previous stage of communication.

In the course of their contacts with peers in the framework of the second form of communication pre-school children endeavour to establish with each other *practical co-operation*. This endeavour indeed constitutes the main content of their communicative need. First and foremost it is vital to distinguish between co-operation and parallel activity. During emotional-practical communication children were doing things in each other's vicinity but any contacts between them were rare and superficial. These contacts were referred to as *parallel activity*. During situational-practical communication pre-school children are engaged in a common activity and co-operating closely with each other: they try to dovetail their actions and attain a common goal. These contacts were referred to as *co-operation*. The transition from parallel activity to co-operation signals a major step forward in the second sphere of communicative activity.

It goes without saying that in the second sphere of communication co-operation differs from the kind we saw in the first sphere: there the participation in the shared activity lent it a purposeful character, whereas in communication between peers there is a shift in its central significance. What is important now is not the result, but the process. After all, what results do games have? They are hardly results in the ordinary sense of the word! The longer and more interesting a game is, the more it unfolds as it goes along, and the longer it takes

to come to an end, the more pleasure it brings children and the happier it makes them. Make-believe games and role-playing in a group are not bereft of goals as are sequential manipulations and they lend the contacts between children visual content.

If for some reason a pre-school child aged four to six is not able to understand suggestions made by his play-mates and comes up with his own instead, children refuse to have anything to do with him, regardless of how high-spirited or active he might be. Although activities involving objects and the acting out of various episodes prevent children as before from gaining a clear picture of each other and evaluating their play-mates, they reject such a child, without realising they are doing so, if he has failed to learn how to co-operate. Even pressure from adults does not change the situation: only after working with such a child individually and helping him reach mutual understanding with partners in a game is it possible (and then not always) to help such an "outcast" to be reintegrated in the group. Pre-school children, who have progressed as far as the situational-practical form of communication are seriously distressed by failures to communicate with their peers. It is precisely at this age that many of them become aware of their real need for the company of their peers and reject their mother or grandmother merely on the grounds that they are not children.

The need for co-operation in play assumes tangible form in the *practical* motives of children's communication. In connection with the second form of communication with peers it is possible here to talk of *tasks*, although with reservations, stemming from our conception of co-operation between pre-school children. All the main stimuli leading children to turn to each other come into being in the process of shared activities: games, the carrying out of household chores, mastering

of the first steps of learning activity. Questions, answers, explanations, ironic comments and mockery testify to the attention that pre-school children are paying to the skills and actions of their play-mates and---even more—to their wish to attract attention to themselves.

Practical attributes of the individual child and his play-mates that provide a reason for them to turn to each other are distinguished by their highly situational character. "Here" and "now"—this is what a child takes into account. What happened two or three days ago has usually been put to oblivion. Events in another town, which he has heard about second-hand and which are not part of his play-mates' lives, quickly vanish from the memory of a small listener. We should remember that most pre-school children of this age have probably already achieved confident mastery of extrasituational forms of communication with adults; they are capable of travelling to and fro in time and space in their imagination, and enjoy doing so. The second sphere of communication, however, develops according to its own laws....

As at the previous stage, so, too, in the context of situational-practical communication the child eagerly tries to become the object of his play-mates' interest and to be evaluated by them. He astutely catches sight of indications of their attitude towards him in their gazes and facial expressions. He is so absorbed with this activity that he often does not manage to make a careful study of them for his part.

In answer to the request that they should describe peer partner they had been working with, children for the most part would really be talking about themselves: "He said nice things about *me*!", "He let *me* look at his pretty pictures", "When *I* spilled the glue, he didn't get cross", "We were looking at books together and *I*'ve got one like that about elephants at home". If discussing an adult, the child taking part in the

same set of experiments will talk quite differently: "She knows everything", "She's as pretty as my Mamma", "She's ever so good at cutting out, she never slips across the edge!", "She loves all children". Pre-school children listened to a story about an adult, who was a fireman, with bated breath, and then they reproduced the story most vividly. Another story, about a little Dutch boy who saved his village by sticking his thumb into a hole in a dam, all members of the child audience kept interrupting with comments about themselves. "I've seen the sea, too", "I stopped the kitchen tap with my finger like your boy in the story and I got really splashed, so Mamma got ever so cross!" The children's attempts to retell the story were consequently patchy and some of the facts became distorted. All this was because it was very difficult for the pre-school child to forget himself when he was being told about someone his own age: he felt the urge immediately to use the child hero as a plumb-line for his own person.

This lack of attention in relation to the peer at the pre-school stage is something quite special that coincides with an ardent and almost possessive interest in everything he does. After the age of four children are constantly asking what success their play-mates are achieving: they give advice as to which child should be drawn into the experiment next and they ask that their failures and setbacks be concealed from their peers. Pre-school children are inclined to play down the achievements of other children and they experience some degree of difficulty—an unusual mixture of embarrassment and reluctance—when called upon to praise their friends in their presence. The subjects in the experiment concerned enjoyed immensely hearing flattering words addressed at them: "Well done!", "You're working well!", "You've stuck that tidily!", "Clever boy!"; yet, when they were made to praise a peer, the researcher had first to overcome considerable resistance on their

part. For a long time the children would stubbornly shake their heads: "No!" Finally, lowering their eyes and in a barely audible voice, they would mutter, "Well done!"

This type of behaviour in pre-school children is sometimes referred to as competitiveness or a tendency to rivalry. We interpret it as rooted in the child's natural desire to discover himself in *his own* finest qualities. He cannot hope to vie or compare himself with an adult. All that remains is for him to look for a real (or at least illusory) way in which he outdoes his peers. It is not unkindness or cruelty, sometimes attributed to children that we see reflected in their naïve searches for their play-mates' weak spots, in their laughter at another child's torn dress, spilled soup or sprained knee. It is rather the child's constant urge to find out the best there is within him at the stage of situational-practical communication: a temporary slip is exaggerated out of all proportion: "You're always doing that kind of thing!" Against a background of this kind a child's own positive qualities will always stand out in a most advantageous light.

In our experiments children carried out various tasks, which served to bring out their dexterity, knowledge and personal merits: in their conversations they compared their results with the real and imagined achievements of their peers. The opinion of their peers usually served to encourage the pre-school children's exaggerated claims prior to the trial of strength and then called forth heated arguments after it, however obvious the results were. "You took a jump to reach the second line," said one boy to another. "No, I got further, as far as the fourth line," insisted another angrily, almost at boiling point. Yet the fourth line was so far away that not even an adult could have reached that far. Identical opinions, but voiced by the grown-ups were accepted calmly; the children were quite willing to agree with their assessments. The weak nature of the inter-

personal motives of communication and the situational character of the practical motive, together with the children's marked orientation towards self-discovery and self-assessment, give rise to the emergence of a superficial, most inadequate and distorted image of their peers and a typical modification of their self-image (boasting, partiality).

For communication amongst themselves pre-school children use three categories of means: *expressive, representational* and *symbolic*. Yet it is the first two categories which predominate, while speech still remains highly situational in character. They talk amongst themselves very much, roughly one and a half times as much as they do with adults, yet their speech is fragmentary, untidy; it is characterised by unfinished phrases and sentences that are simpler in construction than those which they use addressing adults. What is striking about their speech is the vivid, almost hyperbolic emotional key of all contacts between children, and the ease with which they switch from fury to uninhibited gaiety and back again. The diversity, wealth and sometimes the incompleteness of the means of communication testify eloquently to the retention of the relaxed note of uninhibitedness to be found in relationships between children, which was to be observed as early as the end of the first year.

If children are lagging behind their play-mates in their level of situational-practical communication, this has an obviously unfavourable effect upon their mental and emotional development. Such children are deeply distressed at being cast out from the group. Those who are "not allowed to join in" the game, become listless and grieve and some of them try to hinder their peers in whatever they are doing. Their distress is linked with their being denied the opportunity to engage in the dominant activity of their age group—make-believe games and role-playing in a group—which is the primary need in

children of this particular age group. They feel rejected, and this means that their need for self-discovery and for self-evaluation of their finest qualities cannot be satisfied. Indeed, who can enjoy the feeling that he is inferior to others? In the period between the ages of four and six the essential core of a child's personality and self-awareness takes shape. Setbacks in the second sphere of communication hold back these important processes: children become passive, reserved and behave in a disgruntled way. This is why adults should not just sit back calmly when their child is isolated from his peers, when he has no friends and finds it difficult to come to terms with his play-mates in particular, because they can do a great deal to help their child.

We conducted formative experiments in a children's home for pre-school children aged five and six, whose communication consisted in short episodes of emotional-practical communication and was interspersed with long periods of solo play. The children came together in two groups and were then asked to act out a number of scenes ("Hospital", "Post Office", "Mummies and Daddies", "Hairdressers" or "The Builder"). The researcher helped the children to identify the actual subject, to plan the activity of each child, to master the vital actions and words, and to organise the practical side of the performance. The adult went out of her way to stimulate the children's initiative, only intervening in the game when it was unavoidable. The main thing was for all children to derive satisfaction from the game, to learn to establish contacts with their play-mates better and to experience the joy to be gleaned from sincerely positive relationships.

After twenty sessions striking changes were to be observed in the children's activity, according to the data collected in the control test during the experiments. Communication in the form of extensive, independent episodes achieved marked prom-

inence among other types of interaction between children and its share among their other activities increased sharply. The need for communication became especially intense and extra-situational features could now be seen in it. Practical motives started to be added to cognitive and interpersonal motives. Children began to show more interest in each other regardless of the game being played and to share the emotional experiences of their peers. After catching sight of a friend attending the same group sessions, the pre-school child hurried over to him; the children hugged each other and laughed. Some of them began to pay more attention to friends' moods. They also took note of their new dress, scratches and bruises. Overall, the level of communication achieved by the children after the sessions was higher than that of the situational-practical form and can rather be regarded as a variety of extra-situational communication.

The investigation also demonstrated that after the sessions with peers, the pre-school children, even if they remained on their own, manifested cognitive activity. Their happy communication with their peers, brimming with interesting happenings, enhanced their self-confidence and filled them with cheerful optimism, which they had been so lacking in previously. Hence this raising of the level of communication with peers favoured the emergence of the pre-school children's personality and self-awareness, and then, via these, the development of cognitive activity.

For other sessions children also aged five and six were selected who tenaciously played down their potential and proved cowards. They named distances far shorter than those they could in fact jump, and were afraid even to look at the "bridge" (the plank placed across the gap between two chairs), and did not even want to listen to anyone mentioning that they should cross it. During the next six weeks the kindergarten teacher

and researcher conducted 16 sessions with each of the pre-school children lasting ten to fifteen minutes. The adults gave the child encouragement and urged him to jump further. Next to him a second small boy was jumping. The results the latter achieved were not as good as those of the diffident subject (the psychologist specially selected the pairs so that this would be the case), yet, being an optimist by nature, the second boy did not lose heart and kept on keenly declaring that he would jump further than the main subject in the investigation. In practice, though, he did not succeed in outdoing the timid boy.

These joint exercises gradually made the subjects' conception of their own potential and the achievements of the other children more accurate. During six weeks the subjects were not shown the plank "bridge" at all, while their enterprising fellow-performers were taught to walk along it. When the formerly timid pre-school children were asked at the final session if they would walk along the plank and were shown how bravely their play-mates coped with this task, 60 per cent of the subjects got the better of their fear and walked along the "bridge", although some of these children did at times put their hand on the shoulder of an adult for support; 20 per cent hesitated for a long time yet could not make themselves tackle the obstacle, and 20 per cent immediately refused to even attempt the task just as they had before the sessions. Watching the actions of their peers had thus clearly helped the child gain a clearer understanding of his own capacities. The help of the adult who had organised the contacts between the children necessary to this end had made it easier for the timid children to become aware of and analyse the implications of their own individual activities, while at the same time gaining new experience in communication.

The formative experiments described above can serve as an example for teachers and parents working to foster situational-

practical communication between peers. The main task of the adults here is to help the children organise a game: to suggest a scenario for the children to act out, to single out the various episodes in it, to allocate the parts and to guide the children's first attempts to put the idea into practice. Interference from the adults needs to be of a cautious variety and be gradually reduced. It is important merely to make sure that the game is a source of pleasure to all those involved so that when they part company afterwards they might say to each other: "Wasn't that a lovely game today! Let's all play it again tomorrow, only Petya should be the little boy instead of Papa, and Katya should be Mamma, not the little girl next time." It is very useful if parents can from time to time discuss the game with the individual children singling out and stressing their particular finds and contributions and introducing in a casual way suggestions for future modifications. It is also important all the time to talk to children about their peers. Members of the family should try to ascertain who a child's close friends are and get to know them, then at leisure discuss their personal characteristics and help the child store up memories of their merry pranks, joint games and occasions when they have helped each other or given each other moral support. In the kindergarten, birthday celebrations, displays of drawings and discussions of work sessions or the children's performance in conjunction with special holidays should all be made use of with this end in view. From time to time each child should be the centre of the group's attention in connection with his most positive attributes, his success and achievements.

The situational-practical form of communication between peers is the main variety of communicative interaction during pre-school childhood. Characteristic of this form of communication is the need for co-operation effected in group role-playing. This need assumes a tangible form in practical motives

that have a marked situational character and are directed towards enhancing a child's self-knowledge and self-evaluation. Situational-practical communication between peers fosters the development of personality and self-awareness, and through the latter curiosity, boldness, optimism, active initiative, and creative originality in the very widest sense of the word. This form of communication demands effort on the part of adults to help it take shape and in particular in cases where its development is slow and its content only meagre. Bringing their influence to bear upon a group of peers, parents and teachers help children's overall mental and emotional development to proceed more successfully and more rapidly than if they work with children on a one-to-one basis.

The Extrasituational-Practical Form of Communication (6-7 years)

This new form of communication between peers, referred to as extrasituational-practical, takes shape at the age of six to seven, but is not fully developed at this stage. The signs of its emergence, however, are unmistakable and elements of this form of communication are clearly visible in all children of this age. Indeed, the very logic of children's progression from one form of communication to another leads us to expect the transformation of contacts between peers precisely in the direction of extrasituational-practical relationships. Specially directed input from adults can serve to foster this trend.

The main urge, encouraging children to engage in more complex contacts during this period of childhood, is their eagerness for *co-operation*. As at the previous stage, it is of a practical nature, that is, it unfolds against a background of

joint play activity. Yet the play itself is now of a rather different kind. Make-believe and role-playing, giving full reign to the imagination and searching after truth, now make way for more conventional patterns of play. Games with rules are more standard in outline, moulded by the experience of previous generations, and usually involve at most one or two roles, and often even these are absent. Games of this new type often provide children with practical experience, forming relationships with other people: they help them to be more clearly aware of their duties which feature as generally accepted rules of behaviour in such games, and help children to understand moral codes, general demands of justice and the obligations, which each individual has to everyone else and to himself.

Make-believe and role-playing in groups continue and new varieties of these activities appear. The most widespread and valuable of these is probably playing "schools". Anticipation of their immediate future is found hand in hand with an emergent understanding of the concept of "schoolteacher" and, most important of all, the concept of "pupil". What the children find attractive in the behaviour of the schoolchild are of course their actions with new objects (satchels, uniform, the mysterious secrets of the "pencil-box"). Most intriguing of all are the schoolchild's rights and duties.

While retaining their lack of inhibition and casualness, games complete with rules acquire purpose and become productive in a way not seen in earlier types of game. They have a beginning (allocation of roles involving counting-out), a clearly defined series of episodes, consecutively following one after another (for example, the children hide, while the leader waits with tightly closed eyes and then sets off to find the other children), and an end. These complete cycles can be repeated if the children are enjoying themselves, but the streamlined structure of the games makes it imperative for the children to

agree amongst themselves and plan their activities; this brings out the individual child's capacity for practical co-operation in more complex circumstances than those he was used to previously. The child has to understand precisely such phrases addressed to him as "You're going to lead" and "Don't you peep out until you count ten!", and he needs to be able to explain to his play-mates what he wants to convey clearly and distinctly ("I found him, but he tripped me up and made me fall down behind the bushes. That's not fair. He must go and hide again!") He has to decide how to explain a new game to his friends and how to introduce a new rule into an old game. In all these cases co-operation, while remaining practical and bound up with the actual activities of the children, nevertheless acquires an extrasituational character. It is this which sets apart the *content* of the communicative need within the context of the third form of communication from what was observed at the previous stage.

The child turns to his play-mates in the main on the strength of their *practical* attributes. Contacts take shape in group games and become clearly defined within those games. However, the dominant motive at the third level of communication among peers is conspicuously different. The main change which it undergoes consists in the falling away of its former situational character. Children's activities develop as concrete examples of a general principle: now the pre-school child starts to act out traditional stories with his play-mates that exist regardless of whether or not any child should turn to them at this particular time and if so, whether it is this particular child.

Another modification to be observed at this stage is the reduction in the situational character of the attributes that encourage children to engage in communication, both their own attributes and those of other children. Pre-school children at the top of the age-range still love playing the fool, their grow-

ing inventiveness and intelligence enable them to talk for a long time on a toy-telephone to a play-mate concealed by a screen, and even to organise a game with him, engaging in an exchange of comments and rejoinders. "I've got a lovely blue piglet!" shouts Anya. "I'm going to put a scarf on his head so that he doesn't get ear-ache. He probably went blue from cold."

Then Elya replies: "I've got a white piglet! He's from the North Pole and doesn't need a head-scarf. I'd better tie it round his waist instead of a skirt. All of a sudden he might have to sit down in the snow."

"You don' get polar pigs," laughed Anya. "The artist must have run out of paint, that's all!"

"You don't get blue ones either," commented Elya with every justification. "Anyway, my piglet's a make-believe one from a story. I've seen real ones, they're just dirty and they like to rub their noses in the mud and lie down in puddles. My piglet, though, walks about in the clean snow and sleeps in an igloo."

The little girls accompany all these words with actions: they move the piglets across the table, dress them up and put them to bed. The twenty minutes of the experiment speed by in a flash. The little girls go off thrilled with what they have just been doing, although they had not seen each other. In a conversation that took place the next day Anya recalled with a laugh: "We had such fun!" She remembered what she herself had done, but could also relate what Elya had thought up in the game. From the other girl's words she depicted the life of the "polar piglet" at the North Pole and by way of conclusion remarked: "She sure can think up stories, that Elya! You know, the other day she made up a wonderful magic wood: there were stars on the trees and butterflies growing on them. Even the teacher at kindergarten was surprised. It was lovely!" Then

Anya fell silent but it was clear that in her thoughts she was still making her way through the enchanted wood, the picture of which had been painted for her almost a month before.

This experiment, providing a number of meetings with a peer, was all geared to a specific goal. In many respects a clearly defined extrasituational image of their play-mate was taking shape. This was how a six-year-old girl spoke of her friend: "She's a very kind girl and very clever. She behaves nicely when we do our work, she's not nasty to anyone, helps them if they need help, both children and grown-ups. She and I are friends... I like clever children!"

Our observations confirmed that real friendship can develop between children of this age-group: they take an interest in events that have taken place in the lives of their play-mates, they want to go and visit them in their homes and invite them to their own, and they look forward to subsequent meetings with them with impatience. Older pre-school children are capable of describing their friends in detail, indicating their characteristics with a wide range of adjectives: 'kind, gentle, fair", "clever, brave, handsome". The children draw attention to the fact that their play-mates are good at telling stories or drawing pretty pictures or knew how to play interesting games. Their utterances are detailed and their good opinions are adequately substantiated.

It goes without saying that at this stage children are, for the first time, developing hostile attitudes to some of their peers. Yet we found it far more important to single out the basis for mutual sympathy, because it is precisely positive emotions that bring light and happiness into a child's world. The main reason for affection growing up between children is well-meaning attention being paid to them, something which also underlies children's love for adults. The adults' task here is to teach

children to be attentive and considerate towards their playmates and to praise them for all the good things they do.

There is also a second side to the development of children's conceptions of their peers: they help to make their *self-image* more precise. The greatest degree of precision children seem to achieve in the assessment of their practical skills. In experiments designed to help children aged 6-7 to reach a more precise conception of themselves, their predictions became more realistic and the actions they engaged in were appropriate to the tasks they were set; in the course of their activity pauses began to appear: a child would pause, ponder and then move forward confidently in the right direction. The sensible nature of the suggestions made by the children, the awareness of the results they were achieving, including mistakes, bore witness to their success in putting together a *self-image* and to children's use of that image when controlling their activity.

Naturally, the contacts between children aged 6-7 are not by any means confined to practical considerations. Children talk amongst themselves on cognitive and interpersonal subjects, so practical motives are not the only ground for communication. Our observations, however, led us to conclude that practical motives nevertheless retain a pre-eminent position. This consideration led us to refer to the form of communication found among the older pre-school children as extrasituational-practical. The writings of other psychologists give us every reason to assume that cognitive motives for communication assume pride of place among younger school-children and interpersonal ones, only during adolescence.

The extrasituational-practical form of communication occupies the central place in the hierarchy of children's various types of activity, for the same reasons as the previous form did, namely because of its significance for the dominant activity of the children at this stage. Without co-operation with his peers

a child is not in a position fully to satisfy his need for coming to terms with new spheres of reality. Contacts with children on a par with himself provide him with an important tool for effectively mastering what he has learnt from adults. For example, a researcher imparted new interesting information to a child by showing him the constellations visible in the sky, telling him their names and talking about the stars, the Universe and space. The child then immediately began to pass on the information to his play-mates. Not only did the children pass on the factual content of the information, but, without realising they were doing so, they also repeated the researcher's method of presentation. The researcher deliberately behaved in a stern fashion with some of the children and spoke to others in a warm, confiding tone. The use of different methods of presentation by the children helped to confirm that the children transferred the experience gleaned from adults in the sphere of their communication with peers.

Children take over from adults new models for complicated grammatical constructions, vocabulary and oratorial devices. Yet it is with their play-mates that they like to practise them all. In general, children talk more often and in more detail among themselves than with adults now. It would not always be appropriate to echo the imperative tone used by mothers or kindergarten teachers, their rhetorical questions or tone of irony but amongst friends it is not difficult for a child to find someone whom he could address the above techniques. This is why the most important function of imbibing socio-historical experience, mentioned in the first chapter, requires that children communicate not only with adults. Peers give a child the opportunity to master models of human activity and behaviour passed down to him by adults and to practise reproducing them, and to watch from the side, as it were, how another child has learnt a similar "lesson". Thus there emerges another

very important function of children's communication with peers in the context of their overall mental and emotional development.

Within the framework of extrasituational-practical communication children use all available means; yet, without doubt, it is speech that takes the pride of place. Children's conversations are not of necessity linked to things happening here and now. Having progressed beyond situational communication now, children learn to talk on the telephone and this is a very striking and eloquent pointer to their transition to extrasituational communication. A child at the situational level of communication is not capable of talking on the telephone at all. The extrasituational level of communication opens up for children the opportunity of perceiving in their mind's eye, thanks to speech, objects and actions described by their play-mates, as well as changes in the latter. No less important is the fact that their interlocutor on the other end of the line is not simply someone keen for a piece of fun, but a particular individual with clearly defined characteristics and style of behaviour.

It is possible to hear children of six or seven years engage in conversations on cognitive and interpersonal subjects that have nothing to do with any kind of game.

A kindergarten teacher put Volodya on a chair in the corner after he had been fooling about. Five minutes later she had to send Maxim there as well. There were no toys in the corner or books but Maxim did not appear downcast. Rubbing his hands in anticipation of an interesting conversation, he asked his play-mate: "Did you see the children's opera on television yesterday?" Volodya nods. "Wasn't that a smashing horse! The king rode in on it. He wanted to sing a song, but..." At this point Maxim shakes with laughter.

"Yes, I saw it," confirms Volodya in a casual tone. "He got caught up in the straps and nearly fell off."

Maxim corrected him: "Those straps are called stirrups. Grandad told me."

Then their punishment period was over and the "outcasts" were allowed to rejoin their play-mates.

This kind of conversations are still short and superficial, and they are infinitely more primitive than conversations by the same children with adults but their actual appearance on the scene is an important fact. After learning to engage in such conversations, a child can, when at school, listen to his classmates' answers and join in conversations of a cognitive nature with them. Practical extrasituational co-operation will develop one stage further, into theoretical co-operation.

The establishment of extrasituational-practical contacts between children constitutes an important part of their preparation for school and helps them overcome future adolescent problems, when children's positions within the peer group acquire central importance for them. The main ways in which adults can help children in this direction are similar to those at the previous stage: (1) to help mould their personality and activity in cognitive and interpersonal conversations with adults, because what they learn in the first sphere of communication they then bring to the second sphere; (2) to encourage lasting, deep-rooted friendly relationships between children, to which end adults need to nurture carefully awareness of all that is good in the links that grow up between the child and his peers and to put an end where possible to negative emotions in such associations—envy, arrogance or selfishness; (3) to create conditions conducive to the emergence of friendly ties between children and their peers, for the deepening of such ties and the extension, within reasonable limits, of a child's circle of acquaintances among his peers.

The reason why the extrasituational form of communication is immature in some children is to be found, in our opinion,

in the fact that adults in the family and in various child-care establishments do not make use of all the opportunities for helping children establish deep-rooted attachments with their peers. It is not very often that one can encounter adults who are seriously concerned about the difficulties a child experiences in making contact with his peers and who are prepared to see their own oversights as the reason for these shortcomings. Far more often, however, adults leave things to run their course in the hope that "everything will turn out all right in the end" or in the sad conviction that their child is by nature unsociable and that nothing can be done about it. Frequently parents blame other children and their relatives for the situation, anxious not to see themselves guilty of any oversight.

Yet in the second sphere of communication, just as in the first, a great deal depends on adults' ability, skill and, above all, will to help children. Watching the development of orphans in children's homes, and after actively communicating with the latter, it appeared quite clear to us that it is possible, over a relatively short period (6-8 weeks), to overcome even advanced levels of misanthropy in five-year-old pre-school children, to make them more interested in their play-mates and to reveal to them the happiness to be gleaned from friendly attachments to their peers. What is important is to work relentlessly for the well-being of the children, and to bear in mind that the establishment of such friendly ties is the crux of the matter. The main path for fostering friendly links between children and their peers is the appreciation by children of their peers as *subjects*, in other words, adults need to foster in children the ability to see in other children individuals on a par with themselves, other human beings with feelings and thoughts, and to be constantly ready to take into account a peer's interests thinking about his own only in second place.

During pre-school childhood only the initial foundation

is laid for deep attachments between people that develop later on. Novels, diaries and memoirs reveal that a sense of true comradeship comes into being far later on, among adolescents or young adults even. Such comradeship may well last throughout an individual's life or, if it is interrupted for some reason, can leave its mark for many years. Friendly relationships among pre-school children are of a much brittle material, and memories of them are usually vague and depend in large part on stories heard from adults. Yet their importance is considerable because they represent a crucial step on the child's path to real and lasting friendship.

This book has outlined the ways in which communication between children and adults, on the one hand, and between children and their peers, on the other, emerges and develops. Our main task was to point out the special features of contacts between children and other people around them during the first years of life. A child can be happy, show his temper or be awkward; he can make a sand castle, draw and indulge in make-believe. We all watch them doing these things but do not always take into account the immeasurable importance that these actions have for children's subsequent development. Not all parents are able to read the open book of their child's psychological development or to interpret properly his pranks and mischief, to see them as a valuable milestone or as a sad sign that they are lagging in their development. It is hoped that this book will be of help to all those who are bringing up small children.

The central focus of this book is communication. An individual lives among his fellows in what Saint-Exupéry referred to as *"Terre des hommes"*. The basis for his development, the stimulus for enriching his spiritual life and the foundation for his happiness and value for the rest of mankind begins to take shape right from a small child's first contacts with adults and

peers. Crucial events take place in the sphere of communication between pre-school children and adults. At a specific turn in the spiral of development these give rise to the second sphere—communication with peers.

Communication with people around him determine the overall mental and emotional development of the individual and shape the latter. The main vital function of children's communication with adults lies in the fact that the child receives from their hands the rich legacy of their forefathers and becomes an Individual, a Person. The main vital function of children's communication with their peers lies in the fact that, in the context of happy and uninhibited interaction with them, a child unfolds his creative originality and thus paves the way for the subsequent proliferation of the intellectual treasures of mankind.

CHILD-ADULTS-PEERS

Professor Maya Ivanovna Lisina (1929-1983), D. Sc. (Psychology), is an outstanding Soviet psychologist. For many years she led the department for research into the mental and emotional development and upbringing of pre-school children at the Institute of General and Educational Psychology of the USSR Academy of Pedagogical Sciences.

In this book Prof. Lisina describes the influence exerted on children's emotional and mental development by their communication with other people. She expounds the results she obtained through research into the problem and makes recommendations to the parents and educators.

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